STR-D2020

SERVICE MANUAL

US Model
Canadian Model

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8-ohm load, both channels driven, from 20 - 20,000 Hz, rated 130 watts per channel minimum RMS power, with no more than 0.008 % total harmonic distortion from 250 miliwatts to rated output.

Other Specifications

Amplifier section

Dynamic power output	8 ohms, at 1 kHz 1HF	195 + 195 watts
	4 ohms, at 1 kHz 1HF	250 + 250 watts
Power output of surround amplifier (8 ohms, at 1 kHz)		15 + 15 watts
Harmonic distortion at rated ouput		Less than 0.008%
Intermodulation (IM) distortion at rated output		Less than 0.008%
Frequency response	PHONO RIAA qualization curve	+0.5 dB
	CD, DAT, TAPE 1/2, DIGITAL (OPTICAL/ COAXIAL) VIDEO 1, 2, 3	5 Hz -20 kHz ±0.5 dB
Residual noise		Less than 70 μV
Damping factor (8 ohms, at 1 kHz)		50
Input sensitivity/ impedance	PHONO MM	3 mV, 50 kilohms
	DAT, CD VIDEO 1, 2, 3 TAPE 1, 2	200 mV, 50 kilohms
	DIGITAL (COAXIAL)	0.5 Vp-p, ±20%, 75 ohms
	DIGITAL (OPTICAL)	TOSLINK
Output sensitivity/ impedance	DAT OUT TAPE OUT 1,2 VIDEO 1	200 mV, 10 kilohms
	SPEAKERS	Accepts speakers of 8 - 16 ohms
	HEADPHONES	Accepts headphones of high and low impedance
MUTING		-20 dB

— continued on next page —

FM STEREO/FM-AM RECEIVER

SONY®

Digital signal processor section

Modulation (A/D conversion)		High Density Linear Converter
Demodulation (D/A conversion)		High Density Linear Converter System (Pulse D/A Converter)
Sampling frequency		32 kHz, 44.1 kHz, 48 kHz
Equalizer	Band	3-band, Bass/Treble/Mid
	Turnover frequency	Bass: 99 Hz - 1 kHz Treble: 1 kHz - 10 kHz
	Center frequency	Mid: 20 Hz - 18 kHz
	Level	±12 dB, 0.2 dB step
	Slope (Q)	3-step selectable, Wide, Mid, Narrow
DDS	Compressor Expander	9-step adjustable 9-step adjustable
Surround	Main parameter ROOM SIZE WALL SEAT POSITION F-R SEAT POSITION L-R EFFECT LEVEL REVERB TIME DELAY TIME	 20-step adjustable 20-step adjustable 20-step adjustable 20-step adjustable 20-step adjustable 20-step adjustable 15.0 ms-30.0 ms, 0.1 ms step
	Sub parameter REAR LEVEL CENTER LEVEL INPUT BALANCE	 0 - −60 dB, −∞, 1 dB step 0 - −60 dB, −∞, 1 dB step Auto/Manual

Video section

Inputs	VIDEO 1, 2, 3: 1 Vp-p 75 ohms
Outputs	VIDEO 1, MONITOR: 1 Vp-p 75 ohms

FM tuner section

Frequency range		87.5 - 108.0 MHz
Antenna terminals		75 ohms coaxial
Sensitivity at 50 dB		18.3 dBf, 45 μV (mono) 38.3 dBf, 45 μV (stereo)
Usable sensitivity		11.2 dBf, 2 μV (IHF)
S/N	Mono	84 dB
	Stereo	78 dB
Harmonic distortion at 1 kHz	Mono	0.2 %
	Stereo	0.4 %
IM distortion	Mono	0.2 %
	Stereo	0.4 %
Separation		45 dB at 1 kHz
Frequency response		30 Hz - 15 kHz $^{+0}_{-1.5}$ dB
Selectivity		65 dB at 300 kHz
Capture ratio		1.2 dB
AM suppression ratio		60 dB
Image response ratio		80 dB
IF response ratio		90 dB
Spurious response ratio		100 dB
RF intermodulation at 800 kHz		65 dB
Auto tuning threshold	Low	30 dBf
	High	50 dBf

AM tuning section

Frequency range	530-1710 kHz (with 10 kHz interval) 531-1710 kHz (with 9 kHz interval)
Antenna	Loop antenna
Usable sensitivity	50 dB/m (at 1,000 kHz or 999 kHz)
S/N	54 dB (at 50 mV/m)
Harmonic distortion	0.5 % (50 mV/m, 400 Hz)
Selectivity	35 dB (9 kHz), 40 dB (10 kHz)
Auto tuning threshold	55 dB/m

General

System	Tuner section	PLL quartz-locked digital synthesizer system
	Preamplifier section	Low-noise NF type equalizer
	Power amplifier section	Pure-complimentary SEPP
Power requirements		120 V AC, 60 Hz
Power consumption		USA model: 250 watts Canada model: 550 VA (5 watts at standby condition)
AC outlets		Two switched, total 100 watts
Dimensions		430 × 148 × 372 mm (17 × 5⅞ × 14¾ inches)
Weight		12.1 kg (26 lb 11 oz)

Supplied accessories

FM ribbon antenna (1)
AM loop antenna (1)
Programmable commander RM-P301 (1)
External antenna connetor (1)
Sony Batteries SUM-3 (NS) (2)

Design and specifications subject to change without notice.

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

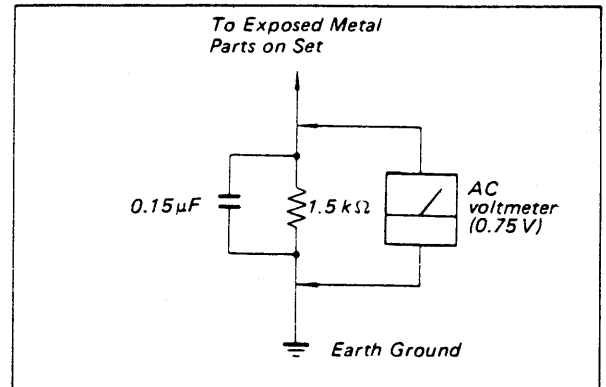


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

Overview

The STR-D2020 is a FM stereo/FM-AM receiver with a built-in digital signal processor.
You can enjoy various audio and video program sources with this unit.

Digital surround processor
- The STR-D2020 electronically reproduces the reflected sound (early reflection) and reverberative sound (reverberation) by using its digital signal processor, and allows you to obtain the acoustics of various situations.
- DOLBY SURROUND PRO LOGIC * decoder reproduces the specially encoded surround sound of Dolby surround video programs.

* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licenced under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590; Canadian numbers 1,004,603 and 1,037,877. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Digital parametric equalizer
- You can enjoy audio program sources with appropriate equalization curve by controlling the level of the desired 3 frequency bands.

Digital Dynamic Sound (DDS)
- You can use the compressor or expander to control the dynamics:
  — the compressor compresses the dynamic range of the program source, so you can enjoy dynamic sound at small output levels.
  — the expander eliminates undesired noise.

Sound field
- 10 recommended sound field programs (combination of surround, parametric equalizer, and digital dynamic sound settings) are preset in the factory for easy use. You can also store up to 10 settings you created in the memory.
- Combined use of the sound field programs and the preset stations allow you to enjoy broadcast listening immediately with the memorized sound field settings.

TV/VCR control center
- You can control up to three VCRs or Laser disc players and a monitor TV with this unit.
- You can enjoy TV or CATV programs with FM simulcast sounds.
- You can add sounds from various audio program sources to video tapes during editing.

Quartz-locked digital synthesizer tuner
- You can store up to 30 radio broadcast stations in the unit.
- Index tuning system allows you to categorize the stations by kinds of music, etc. and tune in a station quickly.

High-power amplifier with a built-in D/A converter
- The built-in D/A converter allows you to directly connect digital audio equipment with optical/coaxial digital outputs.
- Independent 2-channel amplifier is built-in for the rear surround speakers.

Dual room link control (DRLC)
- The DRLC function allows you to link a second room to your main or primary listening room. You can enjoy listening to either the same program source being played in the main room or a different program source in the second room.

Programmable system commander RM-P301
- The supplied remote commander can "learn" the various functions of other infrared type remote commanders.

Precautions

On safety
- Operate the unit only on 120 V AC, 60 Hz.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.

On operation
Before making program source connections, be sure to unplug the unit.

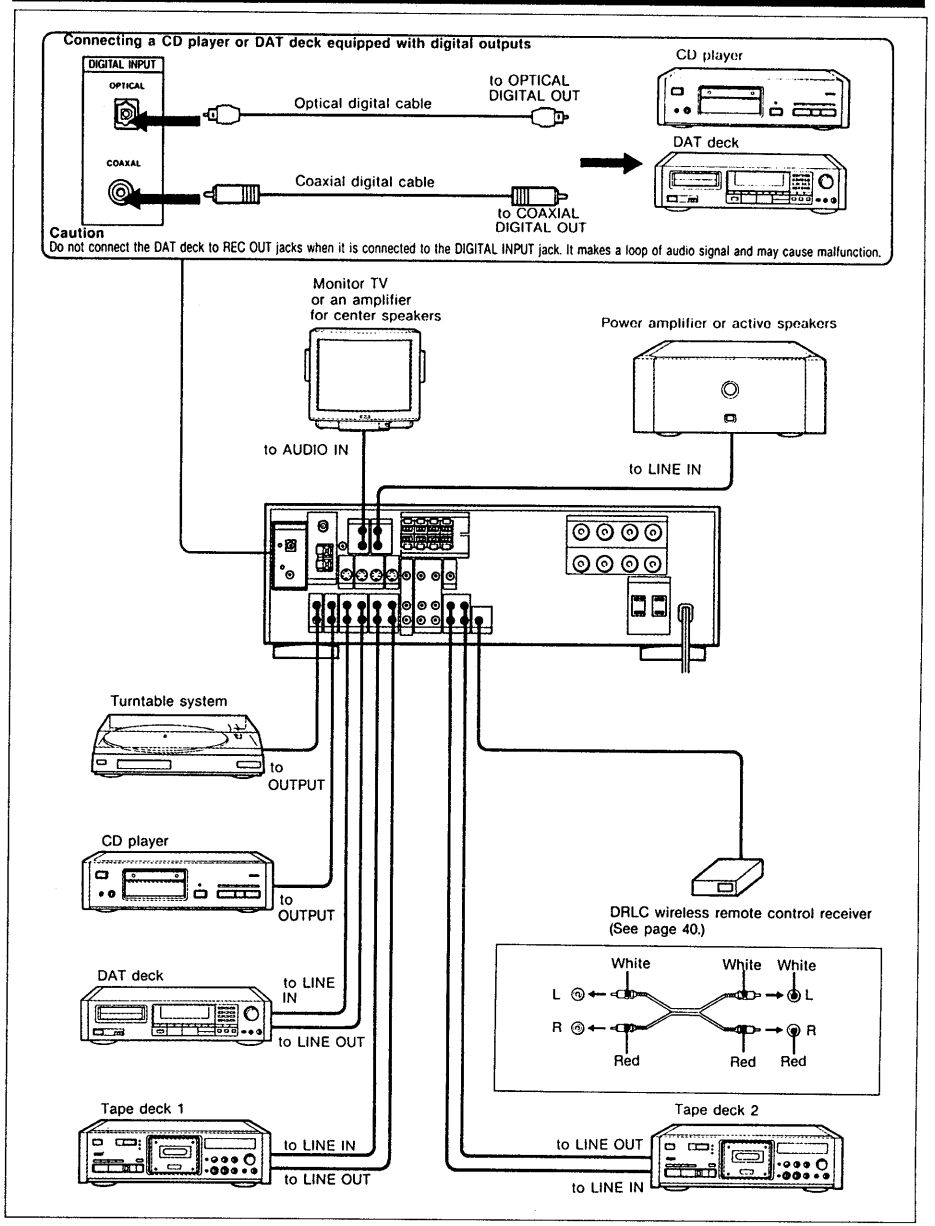
On cleaning the cabinet
Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine.

For the customers in the U.S.A.
For detailed safety precautions, see the "IMPORTANT SAFEGUARDS" leaflet.

If you have any question or problem concerning your unit, please consult your nearest Sony dealer.

Connecting the System

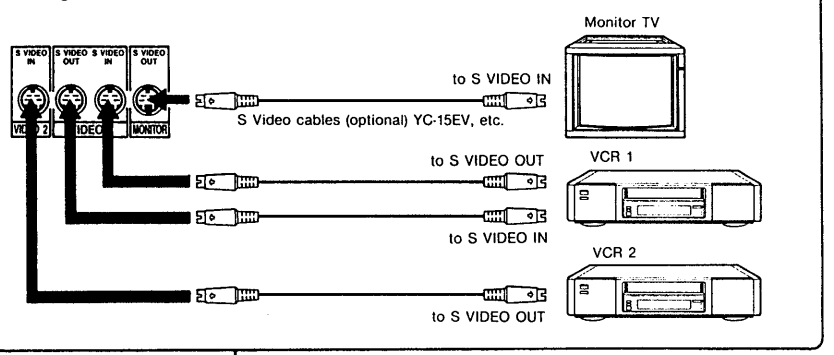
Connecting Audio Equipment

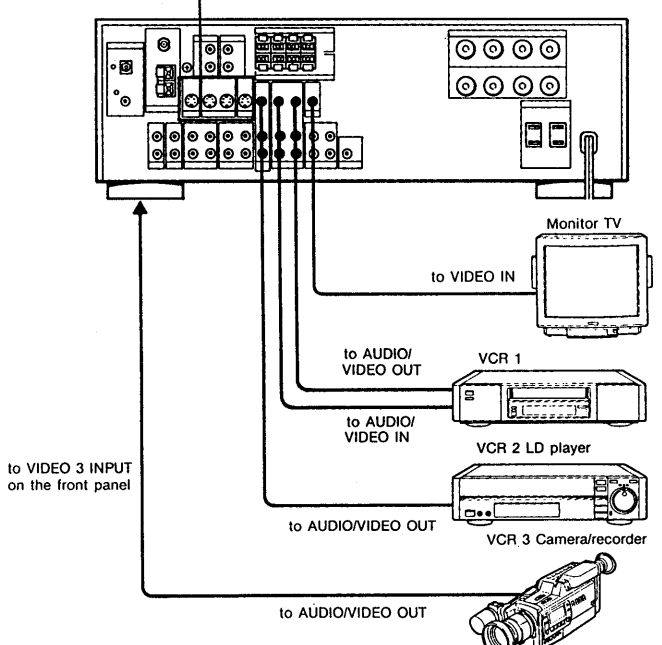


Connecting the System

Connecting Video Equipment

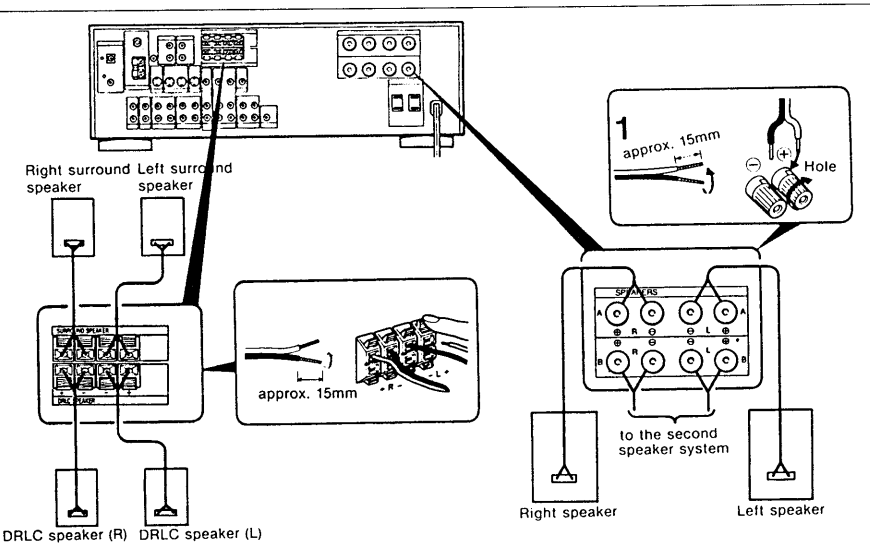
Connecting a VCR and monitor TV equipped with the S connectors





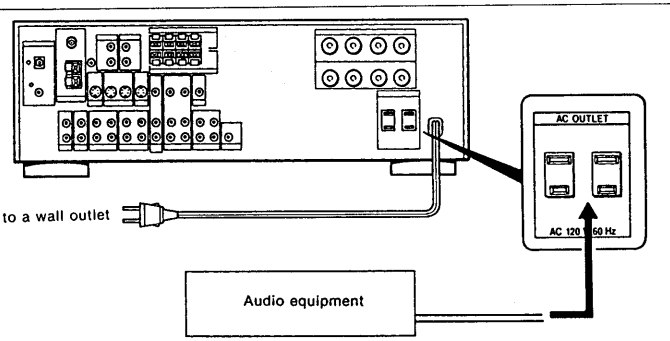
Note
The unit has independent input/output circuitries for S VIDEO and VIDEO IN jacks. Therefore, the video signal input from VIDEO IN does not output for S VIDEO OUT jacks, and vice versa.

Connecting Speaker Systems



Speaker impedance and power capability
This receiver is designed to work best with speakers having nominal impedance from 8 to 16 ohms. Be sure to use a speaker with adequate nominal impedance and power handling capabilities.

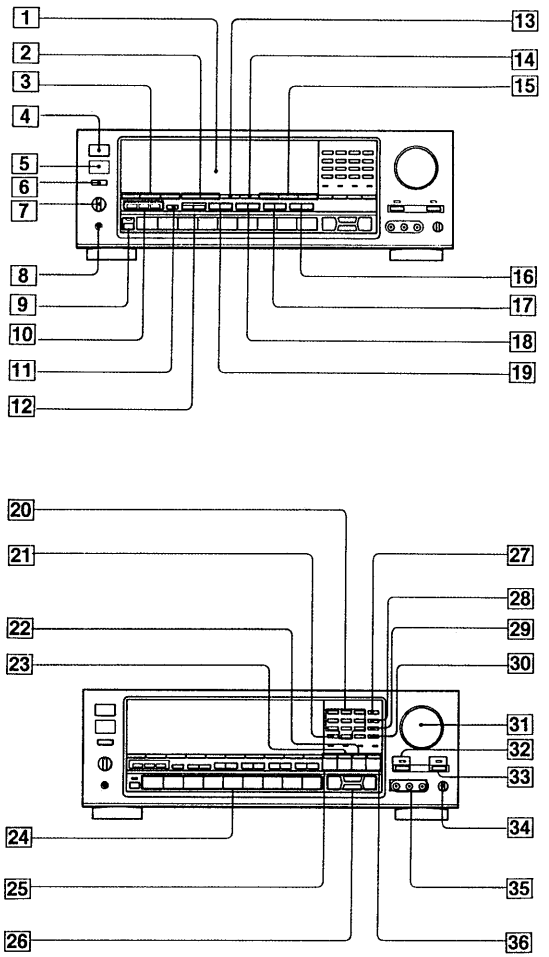
Connecting the AC Power



Caution
Be careful that the total power consumption of each equipment connected to the outlets on the receiver does not exceed 100 watts.
Do not connect electrical home appliance such as an electric iron, fan, or other high-wattage equipment to these outlets.

Parts Identification

Front Panel—Refer to the pages indicated in ○ for details.



1 Display window

2 EQUALIZER function buttons (ON/OFF, FLAT) ㉕

3 SURROUND function buttons (ON/OFF, MODE, PROLOGIC) ㉗, ㉘, ㉙, ㉝

4 POWER switch

5 Remote control sensor

6 DRLC/POWER switch ㊵

7 SPEAKERS selector (A + B, OFF, A, B) ⑯

8 HEADPHONES jack

9 TAPE 2 MONITOR button and indicator ㉔

10 SAMPLING FREQUENCY indicators ⑰

11 DOLBY PRO LOGIC TEST TONE button ㉗

12 EDIT buttons (VIDEO, AUDIO) ㉕

13 DDS (Digital Dynamic Sound) ON/OFF button ㉞

14 S. (sound) FIELD LINK ON/OFF button ㉞

15 TUNER function buttons (INDEX SELECT, FM MODE, FM/AM) ⑱, ㉓

16 PRESET TUNING −/+ buttons ㉑

17 INDEX TUNING −/+ buttons ㉓

18 SOUND FIELD buttons (USER/PRESET, MODE) ㉚, ㉞

19 DISPLAY buttons (GRAPH, CHARA) (graphics, character) ㉒, ㊱

20 Numeric buttons ⑲, ⑳-㉓, ㉚, ㉟

21 MEMORY button ⑳, ㉒, ㉞

22 TUNER TUN/CHARA(tuning/character) button and indicator ⑲, ㉒

23 PARAMETER SUB button and indicator ㉗, ㉘

24 Function selectors ⑰

25 PARAMETER MAIN button and indicator ㉙, ㉝

26 CURSOR MODE operation buttons

27 PGM (program) SET button ㉞

28 RECALL button ㉚, ㉞

29 TUNING DIRECT button ⑱

30 SLOPE button ㉟

31 VOLUME control knob ⑯

32 MUTING button and indicator ⑯

33 AUTO INPUT BAL(balance) button and indicator ㉘

34 BALANCE control ⑯

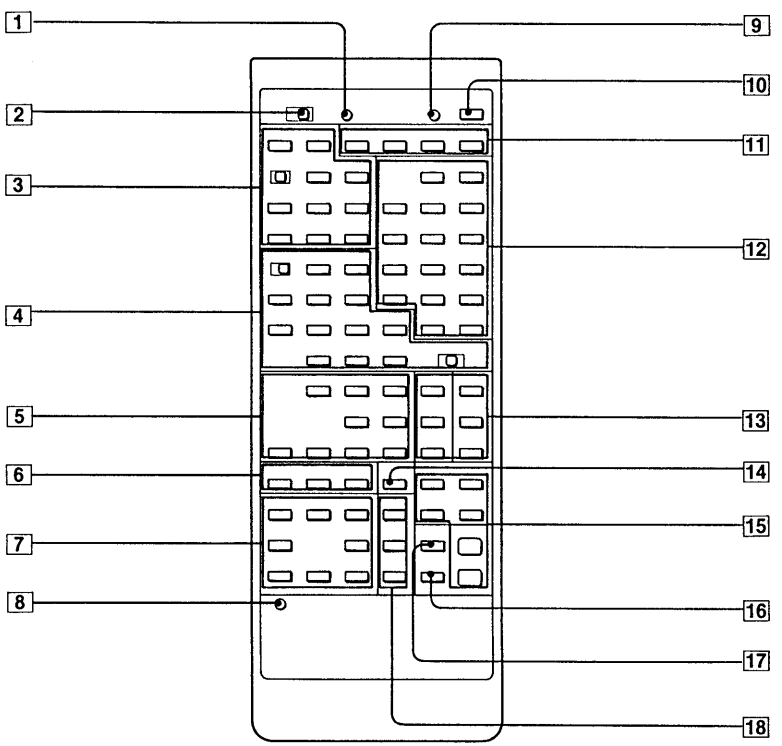
35 VIDEO 3 INPUT jacks

36 EQUALIZER BAND button and indicator ㉟

Parts Identification

Programmable System Commander RM-P301 (supplied)

The RM-P301 can "learn" various functions of other remote commanders which use infrared rays.
When the mode selector is set to SONY STD (Sony Standard), button on the RM-P301 can be used to perform the functions below.



1 LEARN indicator

2 Mode selector
SONY STD(standard): To operate the commander on Sony standard
USER STD(standard): To use the learned functions
LEARN: To learn other functions

3 CD player/LDP(Laser Disc Player) operation buttons
CONTINUE: Continuous play (only for CD player)
SHUFFLE: Shuffle play (only for CD player)
CD/LDP selector: Selects CD player or LD player to be played. The combined CD/LD player can be controlled with this selector set to LDP.
PGM: Program play (only for CD player)
D.(disc) SKIP: Disc skip (for a CD player equipped with a multi-disc changer)
►: Starts play
I◄◄/►►I: Locates a desired selection.
■: Stops play.
◄◄/►►: Manual search (only for LD player)

4 TAPE/DAT/VTR operation buttons
TAPE/VTR selector: Selects TAPE(tape deck) or VTR(VCR) to be controlled.
ANT (antenna) TV/VTR button: Selects the output signal from the antenna terminal on the VCR, either a TV signal or VCR programs.
CH (channel) +/– buttons: Select channel on the VCR.
◄◄/►►: Fast winding
■: Stop
◄/►: Play
II: Pause
REV/●REC (recording)/FWD buttons: For reverse recording, press REV and REC together (only for tape deck)
For forward recording, press FWD and REC together.
DECK/VTR selector
DECK A, B, and DAT: Selects A, B or DAT deck.
VTR 1, 2, and 3: Selects VCR type.
1: Betamax VCRs
2: 8mm VCRs
3: VHS VCRs

5 FUNCTION selectors
Select an input source of the receiver.

6 SURROUND buttons
ON/OFF: Turns on/off the surround function.
MODE: Selects the surround mode.
T.(test) TONE: Generates a signal that is sent to each speaker in succession.

7 CURSOR CONTROL buttons
MAIN: Selects PARAMETER MAIN.
SUB: Selects PARAMETER SUB.
EQ (equalizer): Selects EQUALIZER BAND.
MODE: Selets MAIN, SUB, TUN/CHARA or EQUALIZER BAND.
◄/►/▲/▼: Cursor control buttons

8 RESET button
Press this button and operate again if the equipment works incorrectly.

9 PROGRAM CLEAR button
Clears all programmed signals.

10 SYSTEM OFF button
Turns off the power of the whole system: LDP, VTR, TV and AUDIO.

11 LDP/VTR/TV/AUDIO POWER buttons
Controls the power of each unit.
Note: The VTR POWER button functions only when the TAPE/VTR selector is set to VTR.

12 TV operation buttons
TV/VIDEO: Selects the input signal to the TV set, either a TV broadcast or VCR programs.
VOL (volume) +/– buttons: Control the TV volume.
CH (channel) +/– buttons: Select a preset TV channel.
Program number (1 to 0) and ENTER buttons: Select the TV channel.

13 TUNER operation buttons
INDEX SELECT: Selects an Index name.
INDEX +/– buttons: Selects a next/previous preset station under the same index.
TUNER SHIFT: Selects a memory page (A, B, or C).
PRESET +/– buttons: Selects a higher/lower preset number.

14 EQUALIZER ON/OFF button:
Turn on/off the equalizer.

15 Volume control buttons
CENTER LEVEL +/– buttons: Adjust the level of the center speaker.
REAR LEVEL +/– buttons: Adjust the level of the rear speakers.
MASTER VOL +/– buttons: Adjust the level output from the receiver.

16 MUTING button:
Mutes the output signal.

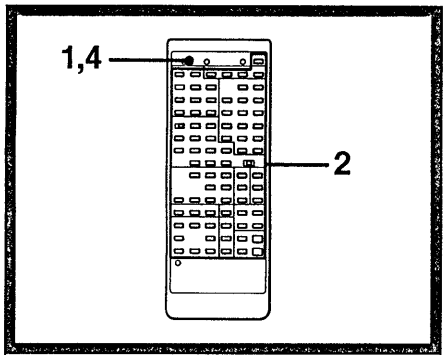
17 DDS/DBFB button
Turn on/off the DDS(Digital Dynamic Sound).
DBFB function is not available with this receiver.

18 S.(sound) FIELD buttons
MODE button: Selects sound field mode.
LINK: Links sound field setting to preset stations.
USER/PRESET: Selects the factory-preset program and the user program.

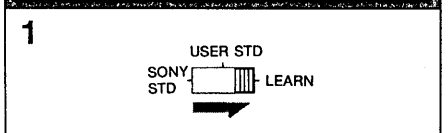
Using the Remote Commander

When you manipulate a switch or button on the commander be sure to point the head of the commander toward the remote control sensor on the front of the receiver.
If there is an obstacle between the receiver and the head of the commander, the receiver may not be controlled remotely.

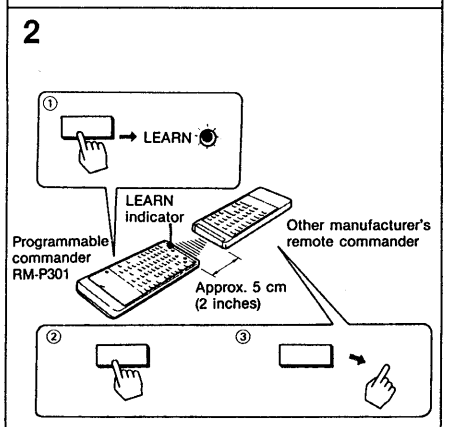
Programming Signals of Other Audio/Video Equipment with Programmable System Commander RM-P301



The RM-P301 learns various functions of other remote commanders emitting infrared rays and allows you to control most of audio and video equipment from a distance.



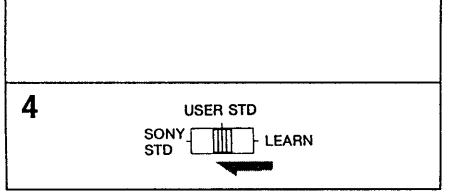
1 Set the mode selector to LEARN.



2 Program a signal.
① Press and hold the button which shall "learn " the remote-control signal until the LEARN indicator lights up.
② Press and hold the button of other manufacturer's remote commander whose signal is to be learned.
③ Remove your finger(s) from the button(s) after the LEARN indicator goes off.

The two remote commanders must:
- face straight each other.
- be placed at a distance of approx. 5 cm (2 inches).
- not be moved during programming operation.

3 Repeat operation for each button to be programmed.



4 Set the mode selector to USER STD or SONY STD.

After programming
Be sure to test if the equipment really works with the programmed signals.

Number of signals that the commander can learn
It depends on the format of the signal. If you program signals of Sony equipment, approximately 50 signals can be programmed.

If the LEARN indicator flashes or does not go off in step 2-(2), ③
The memory capacity is full. This occurs when other signals stronger than the remote-control signals have been stored because the signals were programmed in a noisy environment or the remote commander were placed too for apart from each other.
→ Clear all the signals following the procedure on the right and program again from the beginning under the proper conditions.

Notes on programming
- Remote-control signals of equipment of manufacturers other than Sony can be programmed only when they are compatible with the infrared wireless remote control system. Since the programmable commander can "learn" only the signals output from another remote commander, it cannot control equipment that do not use a remote commander. Also, note that there are some special remote-control signals that cannot be programmed.
- Do not attempt to use the programmable system commander with an air conditioner or other household appliances.

To program a new signal onto a previously programmed button

Follow the programming procedure.
The previously programmed signal is cleared and replaced by the new signal.

To clear all programmed signals
1 Set the mode selector to LEARN.
2 Press and hold any button of the programmable area until the LEARN indicator lights up.
3 Press PROGRAM CLEAR until the LEARN indicator flashes and goes off.

Note

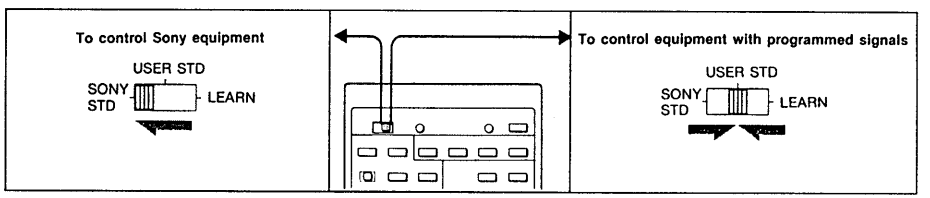
It is not possible to clear the programmed content of just one button.

To program a signal onto the ● REC button in the TAPE or VTR section
It is not possible to operate any equipment with only the ● REC button. To program a signal on the ● REC button, press and hold the following buttons at the same time in step 2-①.

TAPE	REV ● REC ● REC FWD
VTR	● REC FWD

Controlling Equipment

By switching the mode selector as shown below, a single button alternately controls Sony equipment and equipment of another manufacturer.



When Sony equipment cannot be remote-controlled
Program the signal in the same way as for equipment from other manufacturers. In this case, even with Sony equipment, set the mode selector to USER STD.

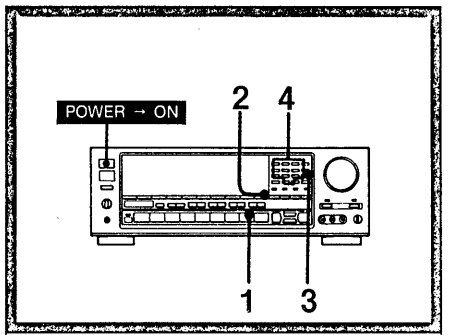
Note on battery
If the LEARN indicator does not light when a button is pressed, the batteries are almost exhausted. When the batteries are exhausted, the remote commander can no longer operate the unit or programming becomes impossible.
If this happens, replace both batteries with new ones. We strongly recommend the use of alkaline batteries.

If no signal has been programmed
The programmable commander can control Sony equipment even when the mode selector is set to USER STD.

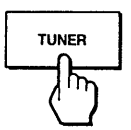
If the equipment works incorrectly
Press RESET and operate again. The programmed contents of the buttons are not cleared by pressing RESET.

Receiving Radio Broadcast Programs

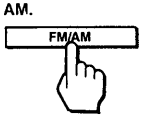
Tuning in a Station Directly - Direct Tuning



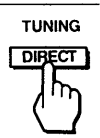
1



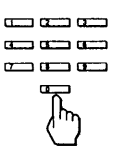
2 Select FM or AM.



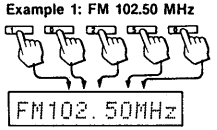
3



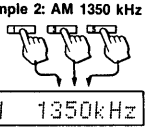
4 Enter the frequency of the desired station.



Example 1: FM 102.50 MHz



Example 2: AM 1350 kHz



To correct the entered frequency
Repeat steps 3 to 4.

For entering AM frequencies, you need not enter the last "0".
However, if you have changed the AM tuning interval to 9 kHz, enter all the digits.

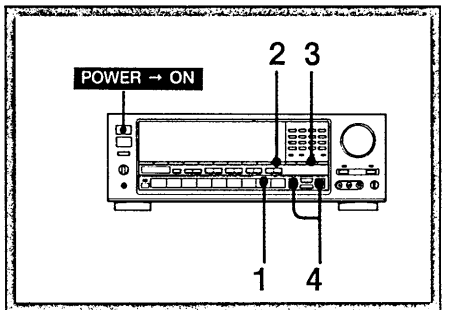
If you enter a frequency not covered by the tuning interval
The entered value is automatically rounded up or down to the closest value covered by the tuning interval.
Tuning interval for direct tuning are the followings:
FM: 50 kHz interval
AM: 10 kHz interval (changeable to the 9 kHz interval)

When the entered number is not in the receivable frequency range
The entered digits (up to 5 digits for FM or up to 3 digits for AM) blink in the frequency display area, and reception does not take place.
If this occurs, press TUNING DIRECT again, and enter the correct frequency (the frequency of the receiver is 87.50 to 108.0 MHz for FM, and 530 to 1710 kHz for AM).

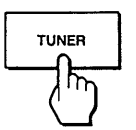
When an FM stereo program is noisy
When the unit receives an FM stereo program, the STEREO indicator goes on in the display window. If the stereo program is noisy, press FM MODE to change the mode over the MONO. This eliminates the stereo effect, but the noise will be greatly reduced.
To return to the stereo mode, press FM MODE again.

Scanning Stations Automatically - Auto Tuning

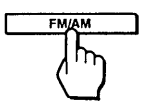
When you do not know the frequency of the station, proceed as follows.



1

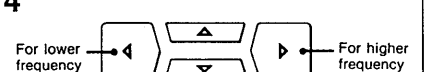


2 Select FM or AM.



3 When the TUNER indicator is lit, skip this step.

4



When a station is received, automatic tuning stops.

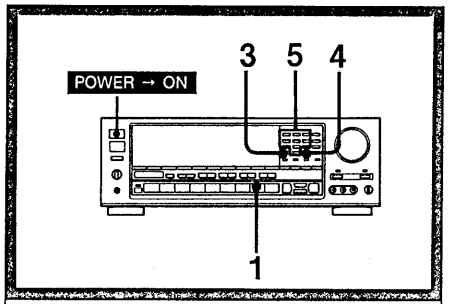
5 Repeat step 4 until the desired station is received.

If the automatic scan stops frequently
You can select the signal level to receive, so that the scan stops only at the stations with strong signal.
To select the signal level:
1 Press TUN/CHARA, so that its indicator lights.
2 Press ∧, so that HIGH indicator lights.

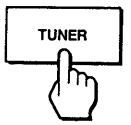
To receive lower signals again, press ∨.
HIGH indicator disappears, and the scan stops at all receivable stations.

Presetting Stations

A total of 30 FM/AM stations (10 stations on each memory page) can be memorized in any desired sequence.



1



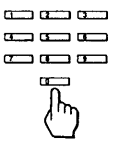
2 **Tune in the desired station.**
(See "Auto tuning" or "Direct Tuning".)

3

MEMORY indicator apprears for a few seconds.

4 **While the MEMORY indicator is on, select the memory page (A, B or C).**

5 **While the MEMORY indicator is on, press the desired number.**



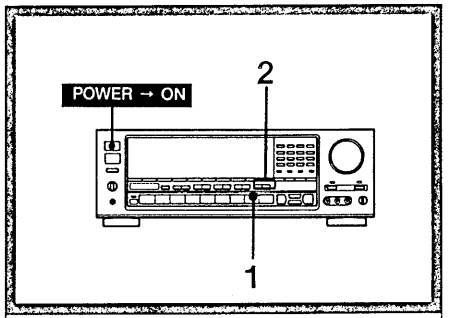
Repeat above steps for presetting other desired stations.

Replacing a preset station
Preset another station on the number of the station to be replaced. The previously preset station will be erased.

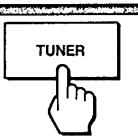
Memorizing FM mode
The FM MODE is memorized in the station presetting.
In step 2, select the STEREO or MONO with the FM MODE, if necessary.

Tuning in Preset Stations - Preset Tuning

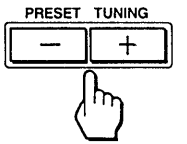
Scanning preset stations



1

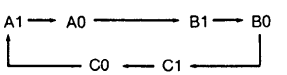


2 **Select the desired station.**

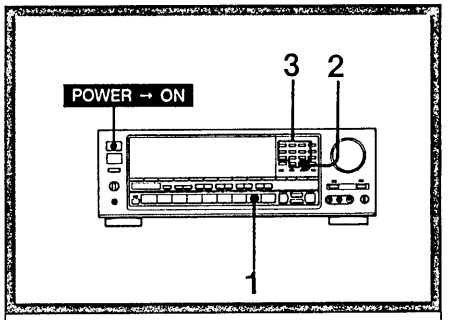


When you press +, the preset station is received sequentially in the direction of the arrow.

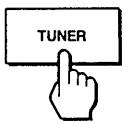
When you press –, the preset station is received sequentially in the reverse direction.



Tuning in preset stations directly

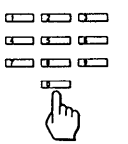


1



2 **Select the memory page (A, B or C).**

3

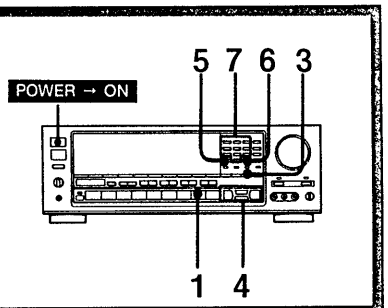


IMPORTANT

The memorized station is maintained for approximately one month even if the power cord is disconnected from the AC power source. If they are erased, store the stations again.

Labelling the Preset Stations - Index Input

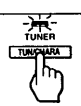
You can divide preset stations under index names you create (up to 5 characters). If you want to categorize the preset stations by kinds of music, for example, create indexes, such as ROCK, JAZZ, etc.



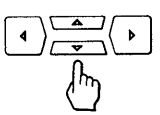
1

2 Tune in the desired station with Direct, Auto, or Preset Tuning.

3

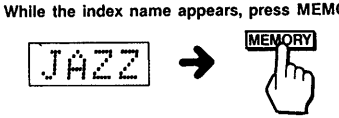


4 Create an index name.



To select a letter or a number, press △ or ▽.
To change the position, press ◁ or ▷.

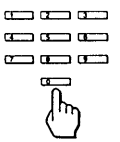
5 While the index name appears, press MEMORY.



The MEMORY indicator appears.

6 While the MEMORY indicator is on, select memory page (A, B, or C).

7 While the MEMORY indicator is on, press the desired number.



If you want to assign the same index name to several stations
Repeat steps 5 to 7.

To correct a previously memorized index
1 Press TUN/CHARA twice so that all the characters in the index name flashes.
Each time you press TUN/CHARA, the display changes as follows:

Frequency of the tuned station ←
↓
One character in the index name flashes.
↓
All characters in the index name flashes.

2 Press △ or ▽ to call up previously memorized index names.
3 Press ◁ or ▷ to move cursor to the desired character.
4 Select the character with △ or ▽.
5 Repeat steps 5 to 7 above.
To resume the normal mode, press TUN/CHARA again.

Each station can be stored under only one index name
If you store an already categorized station under any other index name, only the last index name will be valid.

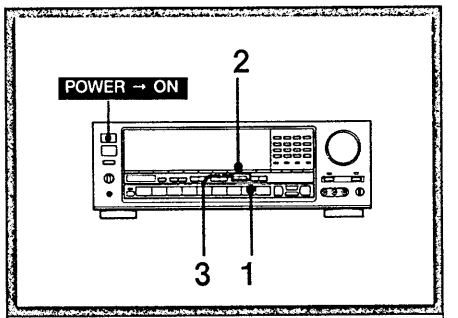
To memorize 0 and O
Because 0 and O appear identical in the display, you need to remember what you set each character to.

To display the frequency and index name of preset stations
Each time you press DISPLAY CHARA, frequency or index name of preset station is alternately appears.

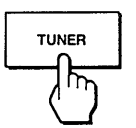
Usable letters and symbols

! → # ← % & ' ( ) * + , − . / 0123456789 : ; < = > ? ↑ ABCDE FGHIJKLMNOPQRSTUVWXYZ [¥] ↑ _ ↓ abcdefghijklm nopqrstuvwxyz

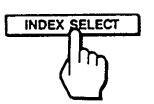
Selecting a Station from among the Preset Stations Having the Same Index - Index Tuning



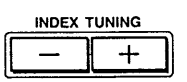
1



2 Select the index name.

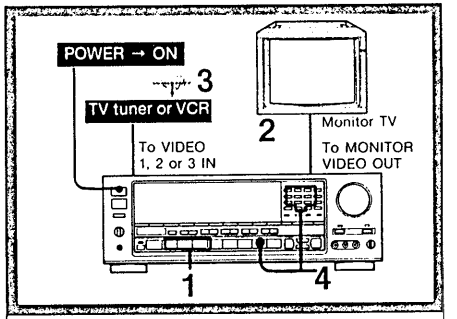


3 Select the desired station.



When you want to tune in a station memorized under a different index name, press INDEX SELECT as many times until the desired index name appears.

Receiving FM Simulcast TV Programs

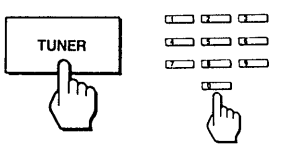


1 Select VIDEO 1, VIDEO 2/LD, or VIDEO 3, according to video inputs connected to an equipment to which the VHF antenna is connected.

2 Turn on the monitor TV.

3 Press the desired program on the TV tuner or the VCR.

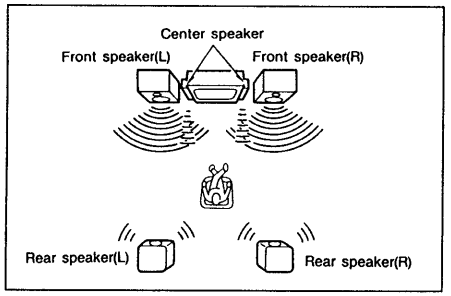
4 Select TUNER and tune in the FM simulcast TV program on the receiver.



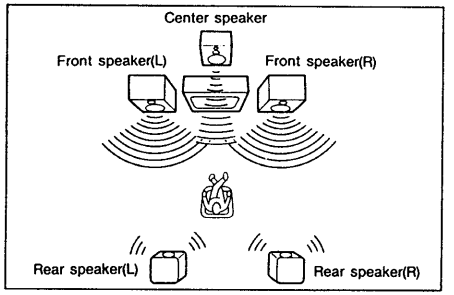
Getting Ready to Enjoy Surround Sound

Placement of Speakers for Dolby Surround Mode

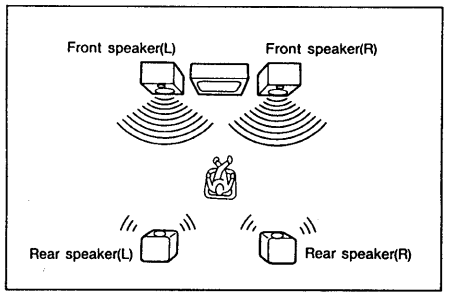
The STR-D2020 incorporates a decoder which reproduces the specially encoded surround sound of Dolby surround video programs. In the Dolby surround mode, select the speaker operation mode according to your speaker system.



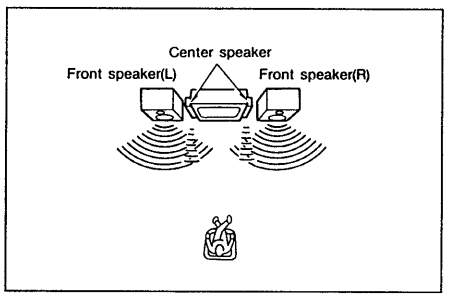
NORMAL mode
Select this mode if you use a small center speaker. The bass sound of the center channel is output from the front speakers, as a small speaker cannot produce enough bass.



WIDE mode
Select this mode if you use a medium to big center speaker.



PHANTOM mode
Select this mode when you play back a Dolby surround program source without using a center speaker.
The sound of the center channel is output from the front (L and R) speakers.



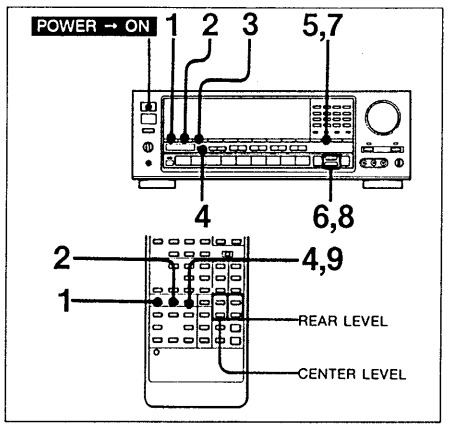
3CH. (channel) LOGIC mode
Select this mode when you play back a Dolby surround program source only with the front and center speakers.
The sound of the rear channel is output from the front (L and R) speakers.

CENTER OFF mode
Select this mode only when you adjust manually the input balance in Dolby surround mode (refer to page 28).

Adjusting the Speaker Volume

To enjoy the surround sound to the maximum on playing any program sources, adjust the front, rear, and center (if connected) speakers to the same volume level. The adjustment must be done with a test tone in the DOLBY SURROUND mode, but the level once adjusted can be used for all surround modes.

You can adjust the volume level from your listening position by using the remote commander.



* On the remote commander, you can adjust the volume level of the center speaker or the rear speakers with CENTER LEVEL +/– or REAR LEVEL +/–, instead of proceeding with steps 5, 6, 7, 8.

1 **Press SURROUND ON/OFF to ON.**

2 **Press SURROUND MODE until DOLBY SURROUND indicator is in square on the display.**
In other surround modes, a test tone is not output from the center speaker.

3 **Press PROLOGIC to select NORMAL, WIDE, PHANTOM or 3CH. LOGIC, depending on your speaker system (refer to page 26).**
The test tone will not be output from the rear speakers when you select 3CH. LOGIC.

4 **Press T.TONE on the remote commender.**
If you use no center speakers, go to step 7.

5* **Press PARAMETER SUB until "Cent. Level" appears in the display.**

6* **Press △ or ▽ to adjust the volume level of the center speaker so that it is the same as the front speakers.**

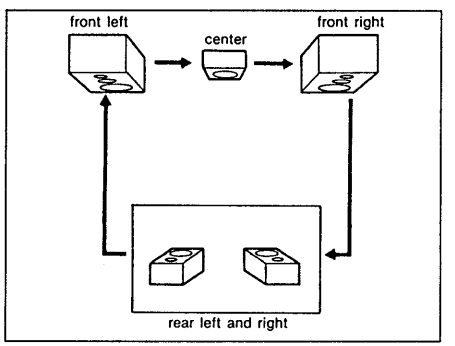
7* **Press PARAMETER SUB until "Rear Level" appears in the display.**

8* **Press △ or ▽ to adjust the volume level of rear speakers so that it is the same as the front speakers.**

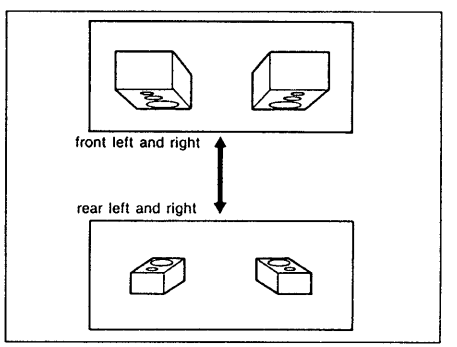
9 **Press T.TONE again to turn off the test tone.**

Sequence of the test tone

In a system with a center speaker:
The test tone will be output automatically from the front L, center, front R, and the rear speakers ("S"-surround) in succession.



In a system without a center speaker:
The test tone will be output automatically from the front speakers and rear speakers alternatively.

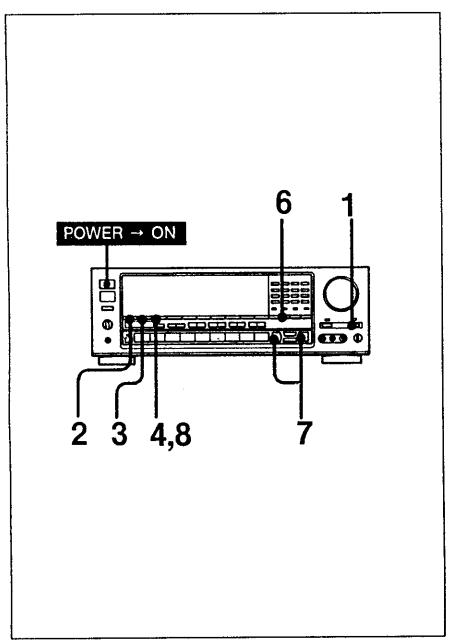


Adjusting the Input Level and Input Balance (for Dolby Surround Mode)

The STR-D2020 incorporates automatic adjustment circuitry of input balance which reproduces the best surround effect. This circuitry allows you to skip the adjustment the input balance when playing back a Dolby surround processed video tape or laser disc. To function this automatic adjustment circuitry effectively, we recommend to perform the following procedure during the playback of monaural sound.
You can also adjust the input balance manually while listening to the actual monaural sound.

To function the automatic adjustment of the input balance
Make sure that the indicator of AUTO INPUT BAL is on. The input balance is adjusted automatically, regardless of the manual setting.

To adjust the input balance manually



1 Press AUTO INPUT BAL so that its indicator is off*.

2 Press SURROUND ON/OFF to ON.

3 Press SURROUND MODE until DOLBY SURROUND indicator is in square on the display.

4 Press PROLOGIC until CENTER OFF appears in the display.

5 Play back the program source (refer to page 17).

6 Press PARAMETER SUB until "Bal." appears in the display.

7 Adjust the input balance by pressing ◁ or ▷, so that the audio levels from the right and left speakers are minimized during dialogue (monaural).

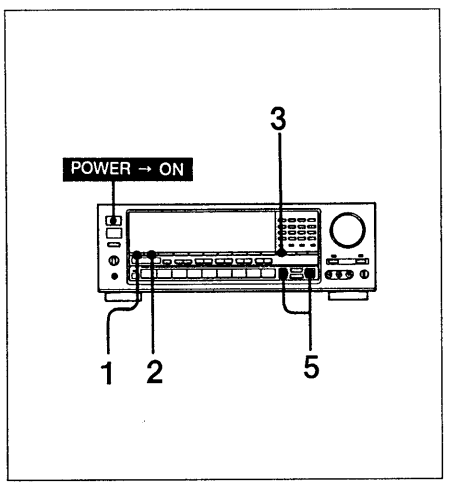
8 Press PROLOGIC to resume the Pro Logic Mode selected on page 26.

Note
* If this indicator is on, "auto!" appears after you finish adjusting the parameter of the input balance.

Even for video software which does not carry the DOLBY STEREO or DOLBY SURROUND mark
Some commercially available software may have Dolby surround processed sound tracks even though it is not so indicated on the package.

Adjusting the Delay Time of the Rear Speakers (for Dolby Surround Mode)

The delay time is a time between the surround sound from the front and that from rear speakers. The delay time is adjustable from 15.0 ms to 30.0 ms.



1 Press SURROUND ON/OFF to ON.

2 Press SURROUND MODE until DOLBY SURROUND indicator is in square on the display.

3 Press PARAMETER MAIN until "Delay Time" appears in the display.

4 Play back the program source (refer to page 17).

5 Adjust the delay time for the rear speakers by pressing ◁ or ▷.

Note
The delay time for the rear speaker can be adjusted even in the 3CH. LOGIC mode.

Enjoying the Factory-preset Digital Sound Effects

Understanding the Digital Sound Effects

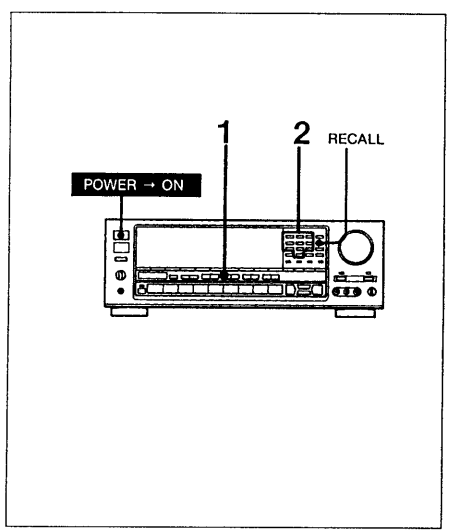
The STR-D2020 incorporates digital signal processing circuitry which consists of a digital surround processor, a digital parametric equalizer, and a digital dynamic sound (DDS) controller.

- The digital surround processor electronically reproduces the acoustics of various listening situations.
- The digital parametric equalizer controls the output level of specific frequencies to finely adjust the frequency responses.
- The digital dynamic sound (DDS) controller compresses or expands the dynamic range of the program source.

These three digital sound effects allow you to create the optimum sound quality and sound atmosphere in your room.

Selecting the Factory-preset Sound Field Program

Ten recommended sound field programs (combination of settings of the surround, parametric equalizer, and digital dynamic sound) have been preset in the factory. Since these programs are appropriate for the most types of music and listening situations, you can enjoy the digital sound effects by just selecting the sound field programs according to the program source.
You can also create a new sound field to your taste by setting each parameter. (Refer to "Making most of the digital sound effects" on next page.)



1 **Press USER/PRESET so that PRESET appears in the display window.**

2 **Press the numeric button so that the indicator of the desired sound field program appears in the display. To use the numeric button in tuner mode, first press RECALL button.**

Preset number	Applications
1	For orchestral music
2	For chamber music or an instrumental solo
3	For operas or musicals
4	For church music or the pipe organ
5	For jazz
6	For disco music
7	For a live concert in an open-air stadium
8	For music programs on video tapes or laser discs
9	For movie programs on video tapes or laser discs
10	For Dolby surround encoded video programs

Making Most of the Digital Sound Effects

Before making most of the digital sound effects

Although ten sound field programs (recommended combinations of each settings) are already preset for easy use (refer to the previous page), you can also manipulate various parameters to finely tune the factory-preset settings to your room, or create orginal sound effects as you like.
To understand the digital sound effects, use the demonstration mode incorporated in the unit.

Table of Adjustable Parameters

		HALL 1	HALL 2	OPERA	CHURCH	JAZZ CLUB	DISCO	STADIUM	LIVE CONCERT	THEATER	DOLBY SURROUND
Equalizer		•	•	•	•	•	•	•	•	•	•
DDS		•	•	•	•	•	•	•	•	•	
Main	Room Size	•	•	•	•	•	•	•	•	•	
	Wall	•	•	•	•	•	•	•	•	•	
	Seat Position Front-Rear	•	•	•	•	•	•	•	•	•	
	Seat Position Left-Right	•	•	•	•	•	•	•			
	Effect level	•	•	•	•	•	•	•	•	•	
	Reverb Time	•	•	•	•			•	•		
	Delay Time*										•
Sub	Rear Level*	•	•	•	•	•	•	•	•	•	•
	Center Level*								•	•	•
	Input balance*										•

*Refer to pages 27 to 29 for ajusting these parameters.

Note
The digital sound effects (the surround, parametric equalizer, and digital dynamic sound controller) cannot be obtained with the program source connected to the TAPE 2 MONITOR.

To start the demonstration mode

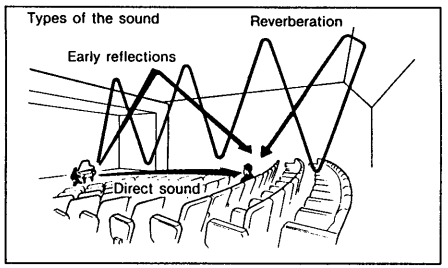
While pressing MUTING, press AUTO INPUT BAL.
The demonstration mode will illustrate how to use each parameter.

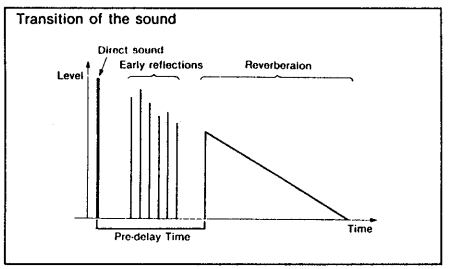
Using the Digital Surround Processor

Understanding the Digital Surround Processor

The sound heard in a place such as a concert hall or a movie theater consists of direct sound, and early reflected sound (early reflections) and a reverberative sound(reverberation). The acoustics of the room affect the way these three sounds are heard. We can estimate the size or the type of a hall by listening to and differentiating these three kinds of sound.
The STR-D2020 reproduces the early reflections and the reverberation using its digital signal processor and allows you to design a variety of sound field in your own room. The unit incorporates 10 types of surround modes, and within each mode, you can adjust several parameters to maximize the effect in your listening room.

Note
Each surround mode has several internal (fixed) parameters in addition to the adjustable parameters explained in this section. Therefore, surround modes will not become the same even if you set all adjustable parameters the same.



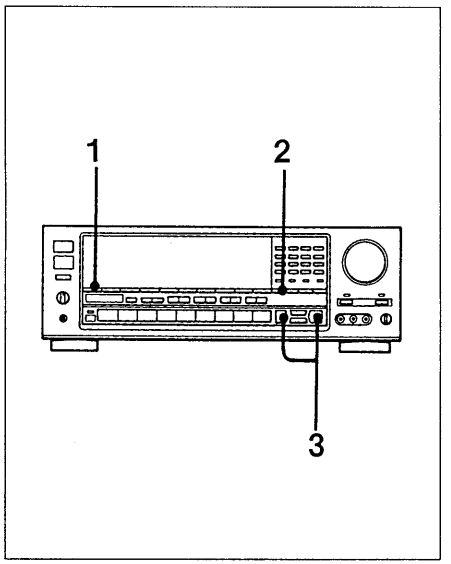


Characteristics of the Surround Modes

Surround mode	Characteristics	Appropriate music source
HALL 1	Reproduces the acoustics of a rectangular concert hall with soft sound. It is effective for playing a program source with hard sound.	Solo or medium-size orchestra
HALL 2	Reproduces the acoustics of a vineyard type concert hall with a large early reflection effect. HALL 2 simulates a larger hall than HALL 1 with walls made of wood and stone. Bright sounds are reproduced.	Large-size concert play such as the orchestra
OPERA	Reproduces the acoustics of an opera house, keeping the clearness of the vocal music.	Opera
CHURCH	Reproduces the acoustics of a church made of wood.	Baroque music, string orchestra or choral group
JAZZ CLUB	Reproduces the acoustics of a live house. The equalizer boosts high frequencies, adding sharpness to sounds.	Jazz
DISCO	The equalizer boosts high and low frequencies, and the dynamic sounds are reproduced.	Pops
STADIUM	Reproduces the acoustics of an outdoor stadium with a long pre-delay time. It is effective for playing a program source recorded in a stadium.	Pops
LIVE CONCERT	Adds the reflection of a large concert hall to decoded signals of the Dolby prologic decoder.	Dolby surround processed music software
THEATER	Adds the reflection of a theater to decoded signals of the Dolby prologic decoder.	Dolby surround processed movie software
DOLBY SURROUND	Decodes programs processed with the Dolby surround.	Dolby surround processed software

Adjusting the Main Parameters

Before adjusting parameters, play back the program source. You can adjust parameters while listening to the actual sound.



1 **Press SURROUND ON/OFF to ON.***

2 **Press PARAMETER MAIN until the desired parameter appears in the display.** (Once you press MAIN, you can select the desired parameter by pressing △ or ▽.)

3 **Adjust the parameter by pressing ◁ or ▷.**

Tips for adjusting the main parameters
The following procedure allows you to make the desired sound field more effectively.

1 Select the desired factory-preset sound field program.

2 Adjust the Effect Level.

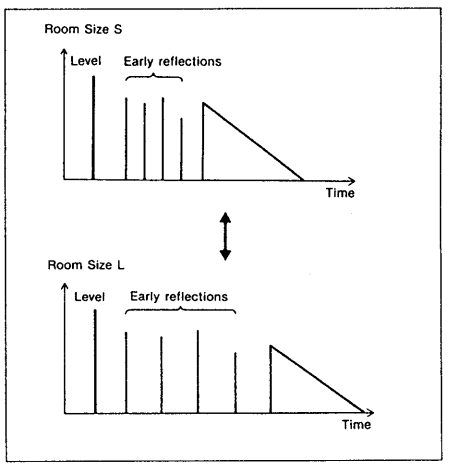
3 Adjust the Reverberation time.

4 Adjust other parameters, if necessary.

Note
*If the surround function is not turned on, "surround off!" appears after you finish adjusting parameters.

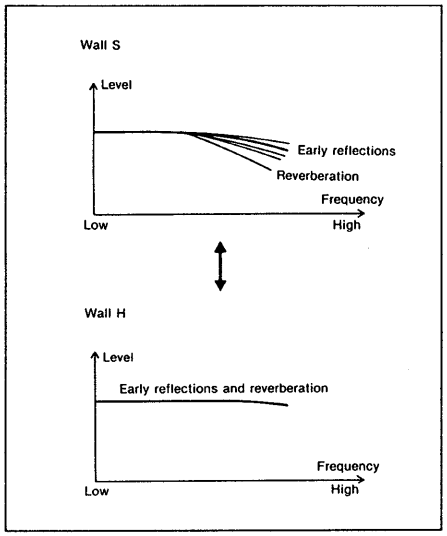
Simulating the Room Size

The sound emitted from a sound source is reflected many times between the left and right walls, ceiling, and floor before it reaches our ears. In a large room, the sound takes more time to bounce from one surface to another than in a smaller room.
The ROOM parameter controls the spacing of early reflections to simulate the room size. The S indicator in the display signifies a small room, the L indicator signifies a large room, and the middle point designates the standard room size.



Simulating the Wall Material

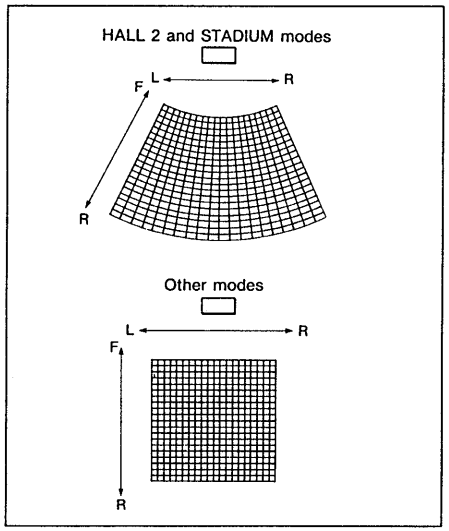
When sound is reflected by a wall made of soft material such as wood or a wall covered with a curtain, the high frequency components are reduced. A hard wall is highly reflective and does not significantly effect the frequency response of the reflected sound.
The WALL parameter controls the level of high frequencies to simulate the wall material. The S indicator in the display signifies a soft wall, the H indicator signifies a hard wall, the middle point designates the standard wall made of wood.



Simulating the Seat Position

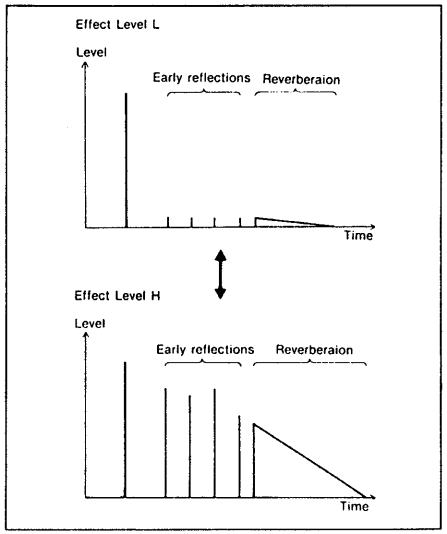
When you sit in the front of a room, you will hear more direct sound from the front speakers, and the component of reflected sounds from the front speakers grows as you move to the rear. Similarly, the component of reflected sound changes when you move from left to right, and vice versa. The F/R and L/R parameters control the balance of the direct and reflected sound and other components of sound to simulate your listening position.
When adjusting the F/R parameter, the F indicator in the display signifies the front position of the room, the R indicator signifies the rear position, the middle point of the indicator designates the center position. When adjusting the L/R parameter, the L indicator signifies the left position of the room, the R indicator signifies the right position, and the middle point of the indicator designates the center position.

Note
You cannot adjust the L/R parameter in the LIVE CONCERT and THEATER mode.



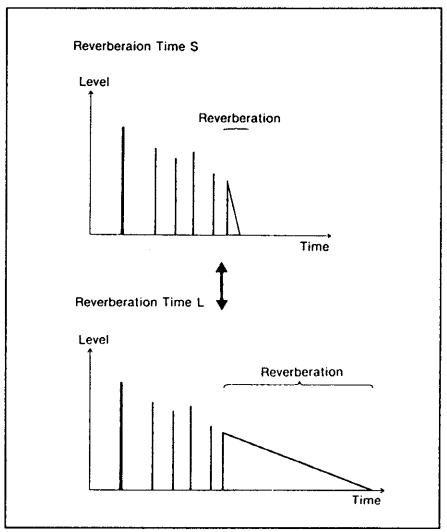
Adjusting the Effect Level

Effect level is the combination of the level of early reflecions and reverberation. The L indicator in the display signifies the lowest level, and the H indicator signifies the highest level. The adjustable level is divided into 20 segments. As you select higher level, the room becomes more "live", and as you select lower level, the room becomes "dead".



Adjusting the Reverberation Time

This parameter adjusts the length of the reverberation—the time requied for reverberative sound to decrease to −60 dB. The S indicator in the display signifies the shortest reverberation time, the L indicator signifies the longest reverberation time.



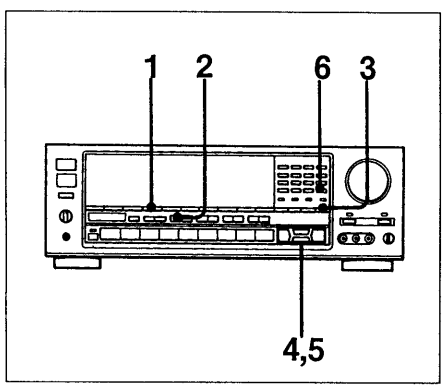
Using the Digital Parametric Equalizer

Understanding the Digital Parametric Equalizer

The parametric equalizer is a tone control system with adjustable center frequency and slope(Q). The STR-D2020 provides flexible equalization using one-band parametric equalizer with center frequency and slope, and 2-band shelving equalizers with adjustable turnover points.
The equalization curve appearing in the display window allows you to accurately adjust the sound quality. The parametric equalizer effects all line output signals including SURROUND (REAR), CENTER.

Adjusting the Digital Parametric Equalizer

Before adjusting the digital parametric equalizer, play back the program source. You can adjust the equalizer while listening to the actual sound.



1 **Press EQUALIZER ON/OFF to ON.***

2 **Press DISPLAY GRAPH until the equlization curve appears in the display.**

3 **Press EQUALIZER BAND to select a frequency band.**
B: Bass
M: Middle
T: Treble

4 **Press ◁ or ▷ to select the frequency you want to adjust.**

5 **Press △ or ▽ to raise or lower the level of the selected frequency.**

6 **Press SLOPE to select the slope if necessary.**

7 **Repeat steps 4 through 6 for other frequency bands until you obtain the desired equalization curve.**
To restore the real time analyzer or peak hold mode, press DISPLAY GRAPH.

Spectrum analyzer display
Every time you press DISPLAY GRAPH, the display of equalizer curve, real time analyzer and peak hold is cyclically switched.

—Equalizer curve shows the settings of the equalizer controls.
—Real time analyzer (RTA type-1) shows the level of each frequency range.
—Peak hold mode (RTA type-2) holds the highest input of each frequency range for several seconds.
—Real time analyzer (RTA type-3) shows the highest level of each frequency range.

To make the equalization curve flat
Press FLAT.
You can create a new equalization curve.

Note
*If EQUALIZER ON/OFF is set to OFF, "equalizer off!" appears after you finish adjusting the parameter.

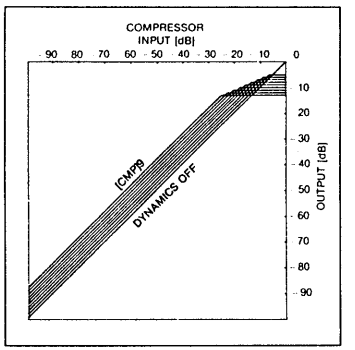
When the center frequency band overlaps the bass or treble frequency band during adjustment
The setting level of each band will accumulate.
The equalization curve appears only between +/– 12 dB.

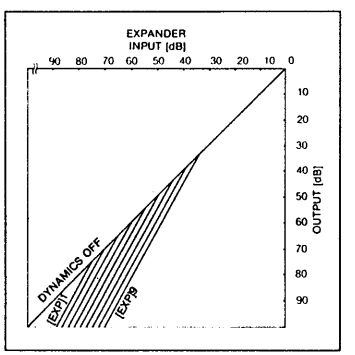
Using the Digital Dynamic Sound (DDS) Controller

Understanding the Digital Dynamic Sound Contoller

The STR-D2020 allows you to select either of two digital dynamic sound contols, compressor or expander. The compressor compresses the dynamic range of the output signal to increase the average output level without distortion. This function is useful for obtaining dynamic sound at small output levels or when recording a program source with a wide dynamic range, such as a compact disc, on a cassette tape. On the other hand, the expander limits the dynamic range of the input signal to eliminate undesired noise.
You can set the compressor or expander effect in 9 increments.

Input/output characteristics of compressor and expander



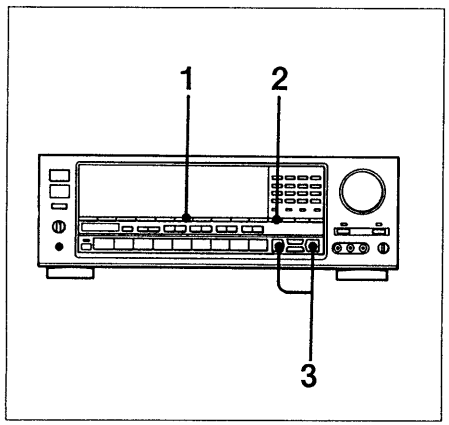


Adjusting the Digital Dynamic Sound Controller

Before adjusting the digital dynamic sound controller, play back the program source.
You can adjust the contraller while listening to the actual sound.

IMPORTANT

You cannot operate the digital dynamic sound (DDS) controller when the DOLBY SURROUND mode is selected. If you select DOLBY SURROUND with SURROUND ON/OFF set to ON, the digital dynamic sound (DDS) controller is automatically turned off. To turn on the DDS controller, select another mode.



1 Press DDS ON/OFF to ON.

2 Press PARAMETER MAIN until "DDS" appears in the display.

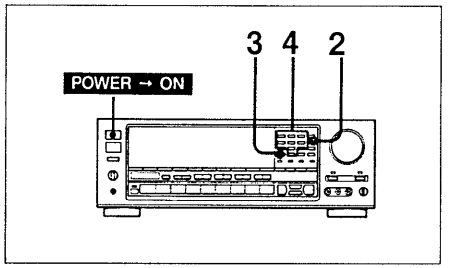
3 Press ◁ or ▷ to adjust the compressor or expander.

Note
If DDS ON/OFF is set to OFF, "DDS off!" appears after you finish adjusting.

Storing the Settings of Digital Sound Effects - Sound Field Memory

Storing the Settings of Digital Sound Effects

You can store up to 10 digital sound effects (combinations of the settings of surround, parametric equalizer, and digital dynamic sound) you created into the memory and recall them.
You can also link these 10 digital sound field effects to preset stations.



1 Set the parameters of surround, parametric equalizer, and digital dynamic sound controller.

2 Press RECALL button (when the unit is in a mode other than TUNER, skip this step).

3 Press MEMORY.

4 Press the numeric button to be stored (1 to 0).

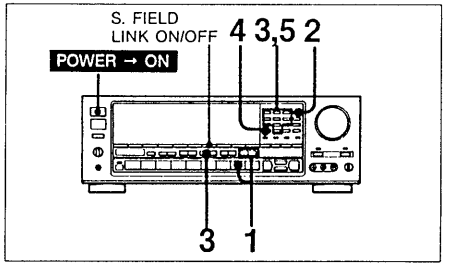
Calling up the settings of digital sound effects
1 Press PRESET/USER until USER appears in the display.
2 Select the desired preset number by pressing the numeric button. To use the numeric buttons in tuner mode, first press RECALL button.

When you store a new digital sound effect
The digital sound effect for the same user preset number will be replaced.

Even if the AC power cord is disconnected
The stored data is maintained for approximately 2 weeks.

To reset the unit to initial settings
Press POWER while pressing SURROUND ON/OFF.
If the DRLC/POWER indicator is lit, first press DRLC/POWER to turn off this indicator.
All of the 10 settings are then restored to the ones stored at the factory.

Linking the Sound Field Memory to Preset Stations



1 Tune in a station to be linked to the sound field effect.

2 Press SOUND FIELD PGM SET.

3 Press USER/PRESET and the numeric buttons (1 to 0) to select the desired sound field effect.

4 Press MEMORY.

5 Press the numeric button corresponding to the station number to be linked.

Tuning in the preset station stored with the linked sound field effect
1 Press S FIELD LINK ON/OFF so that SOUND FIELD LINK ON appears in the display.
2 Select the desired number by pressing the SHIFT and numeric button.

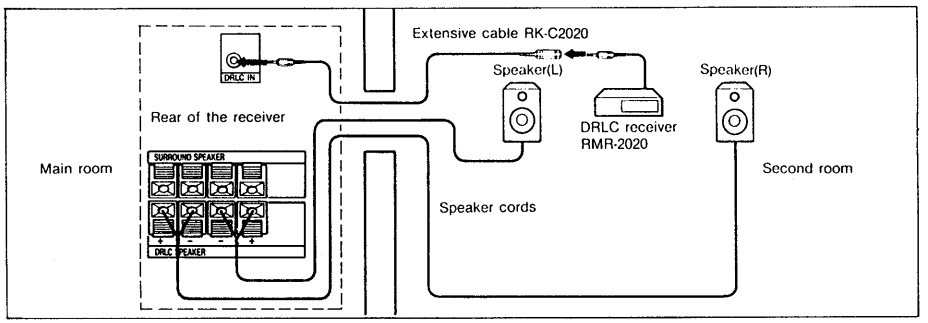
To change the sound field setting
Press S FIELD LINK ON/OFF to OFF, and then adjust the sound field effect as you desire.

Enjoying Sound in Another Room

Overview

The Dual Room Link Control allows you to link a second room to your main or primary listening room. When the RM-S2020K Dual Room Link Control Kit (optional) and optional speakers are properly connected to your audio system and they are placed in the second room, either the same program source being played in the main room or a different program source can be heard in the second room.

Connections



Operation

1 Press DRLC/POWER. (The POWER switch on the main unit does not need to be turned on.)

2 To listen to CD or tape in the second room, set the CD player or tape deck into the play mode.

3 Control the system with the remote commander RM-S2020K for the second room.

The following examples illustrate program source options for the main and second room.

Listening in the main room	Listening in the second room
CD	FM broadcast
Tape	CD
Sound from TV	Same sound from TV
Off	FM broadcast
Sound from video source (with surround effect)	Second room system defeated
FM broadcast	Off

Note

- The surround system is used in the main room and the DRLC function cannot be operated simultaneously.
- You cannot use the following functions from the second room.
  - — Surround effect
  - — Equalizer control
  - — DDS control
  - — Muting
  - — TAPE 2 MONITOR

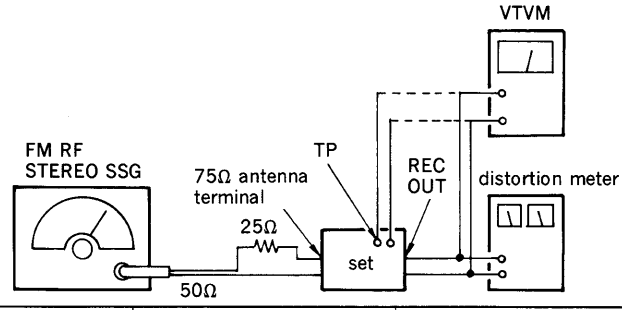
Please refer to the operating instructions of RM-S2020K for details.

SECTION 2
ELECTRICAL ADJUSTMENTS

FE001 FM front-end and FE002 AM front-end are adjusted Perfectly and are supplied as unit for replacement.

FM SECTION

Connecting :



	Null & Mono Distortion	Stereo Separation	Muting Level
Carries frequency	98.1MHz		
Output level	60dB (1mV)		45dB/20dB
Modulation	1kHz, 75kHz deviation	1kHz, 33.75kHz deviation sub carrier 38kHz, 33.75kHz deviation pilot 19kHz, 7.5kHz deviation	1kHz, 75kHz deviation
Adjustment Location	T001/T002	RT004	RT002
Test Point (TP) or Jack	TP001/REC OUT	REC OUT	D033 (Cathode)

Null and Mono Distortion Adjustment

Setting :

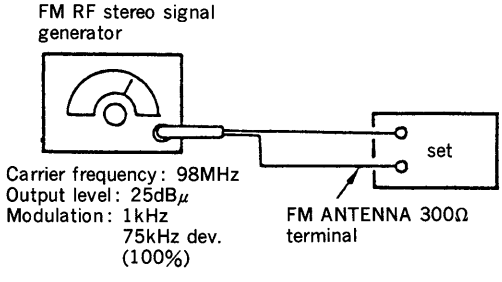
FUNCTION selector : TUNER
BAND selector : FM
FM MODE : MONO

Procedure :

1. Tune the set to 98.1MHz.
2. Adjust T001 so that the voltage of TP001 (Null) becomes 0 V (within 0±50mV)
3. Adjust T002 so that the distortion at REC OUT becomes minimum. (Not more than 0.05%)
4. Repeat the procedures 2. and 3. several times.

• FM Stereo Operation Level Adjustment

Setting :



Procedure :

1. Tune the set to 98MHz.
2. Adjust RT003 that the STEREO LED goes on.

Stereo Separation Adjustment

- This adjustment should be performed after Mono Distortion Adjustment.

Setting :

FUNCTION selector : TUNER
BAND selector : FM
FM MODE : STEREO

Procedure :

Tune the set to 98.1MHz

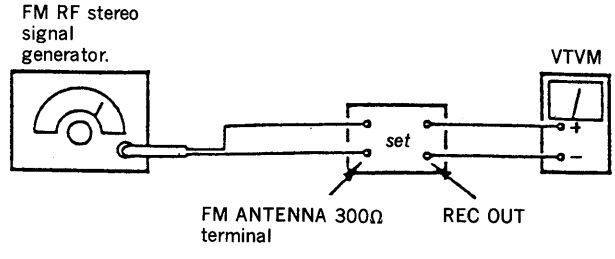
FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-HC	Ⓐ
R-CH	L-CH	Ⓑ Adjust RT004 for minimum reading
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RT004 for minimum reading

L-CH Stereo separation : Ⓐ−Ⓑ (≧40dB)
R-CH Stereo separation : Ⓒ−Ⓓ

The separations of both channels should be equal

• Auto Stop Level Adjustment

Setting :



Carrier frequency : 98MHz
Output level : 40dBμ or 45dBμ

Procedure :

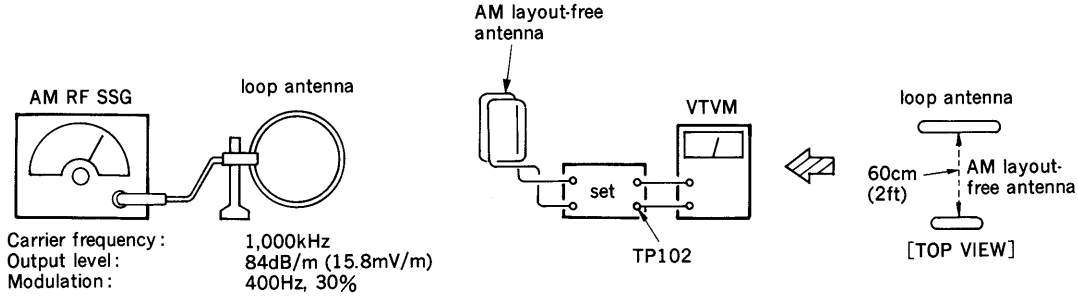
1. Turn the High/Low select switch to High.
2. Adjust RT002 so that the TUNED LED goes on.

AM SECTION

Tuned Level Adjustment

Setting :

FUNCTION selector : TUNER
BAND selector : AM

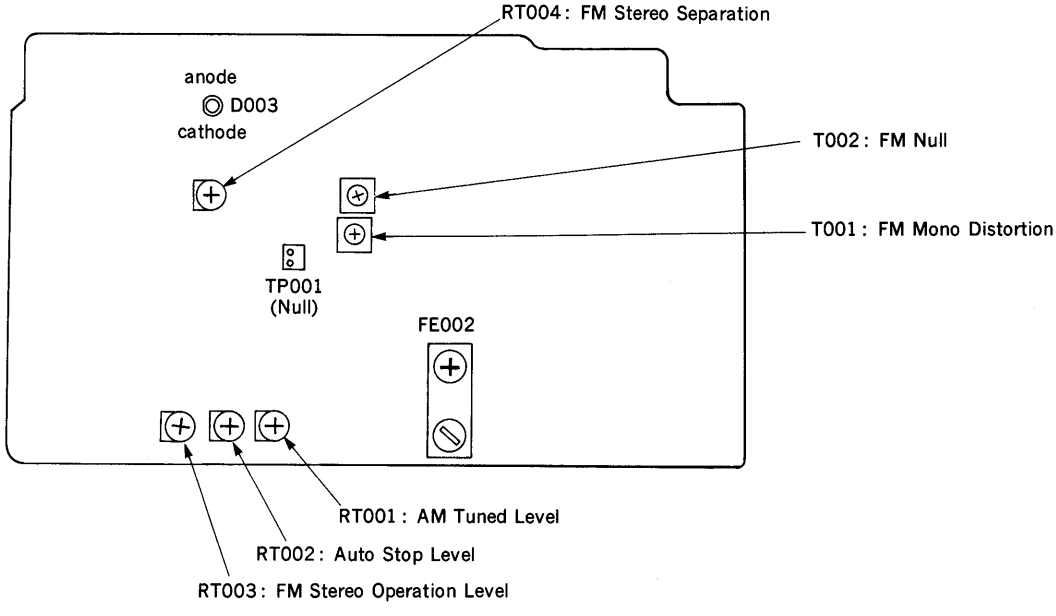


Procedure :

Adjust RT001 to the point where the voltage fo D003 (cathode) turns from high level to low.

Adjustment Location :

[TUNER BOARD] —Component side—



AMP SECTION

DC Bias Adjustment

- Perform this adjustment after replacement of power amp or drive circuit transistors.

Setting :

VOLUME : 0
SPEAKERS : OFF (no load)

Procedures :

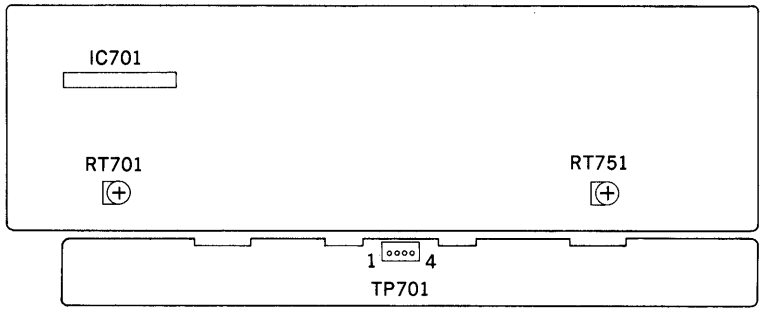
1. Connect the digital voltmeter to Bias Test Point (TP701 ①, ② : L-CH, TP701 ③, ④ : R-CH)
2. Increase the AC power voltage gradually to 120V confirming that the voltmeter will not indicate an abnormal value.
3. Confirm that the display is normal.
4. Adjust RT701 (L-ch) or RT751 (R-ch) so that the reading on the voltmeter becomes 0.01mV within 30 seconds after the power turned on.

Note : It is normal that the voltage will increase as time passes.

5. Turn the power off and remove the digital voltmeter.

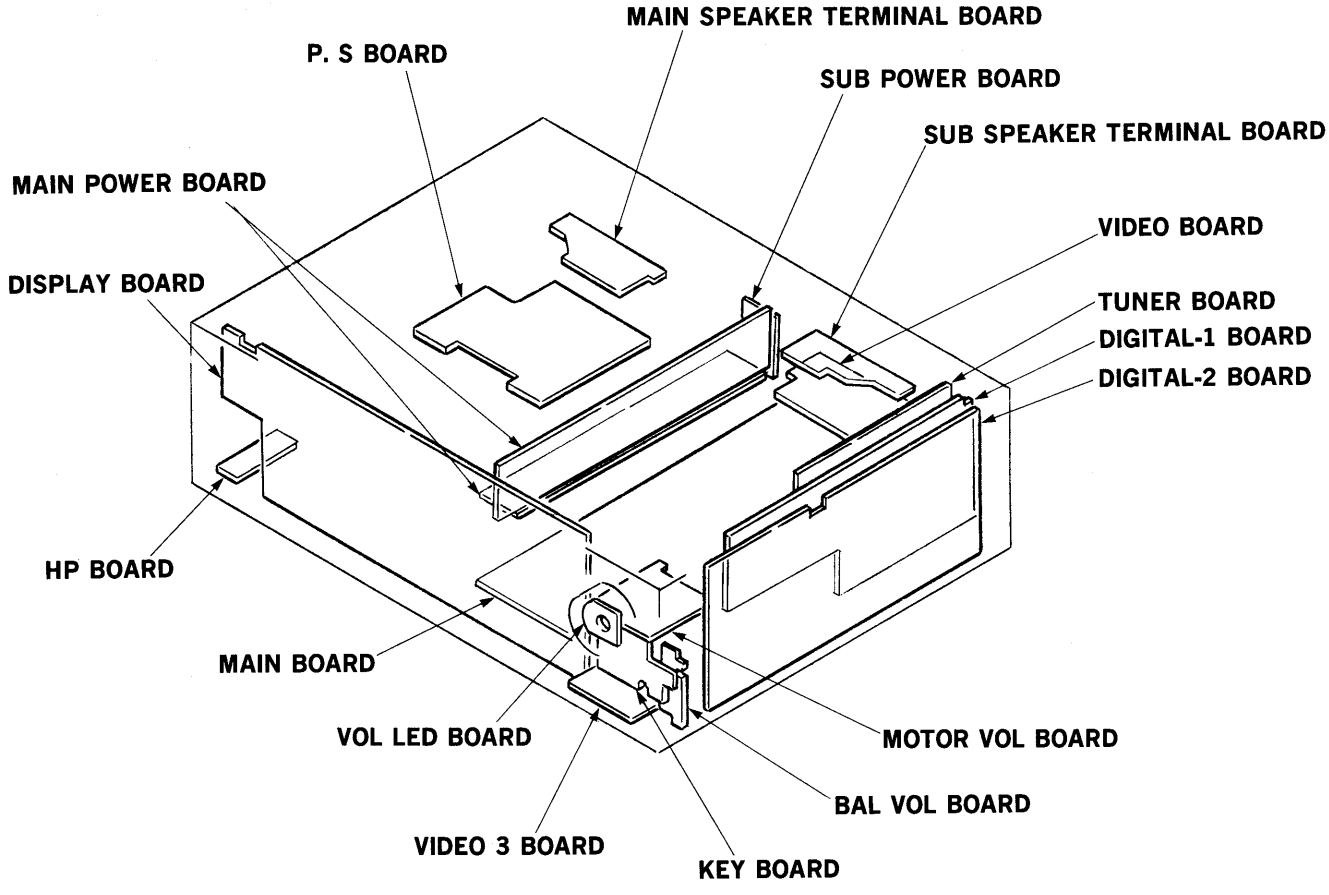
Adjustment Location :

[MAIN POWER AMP BOARD] —Component side—



SECTION 3
DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

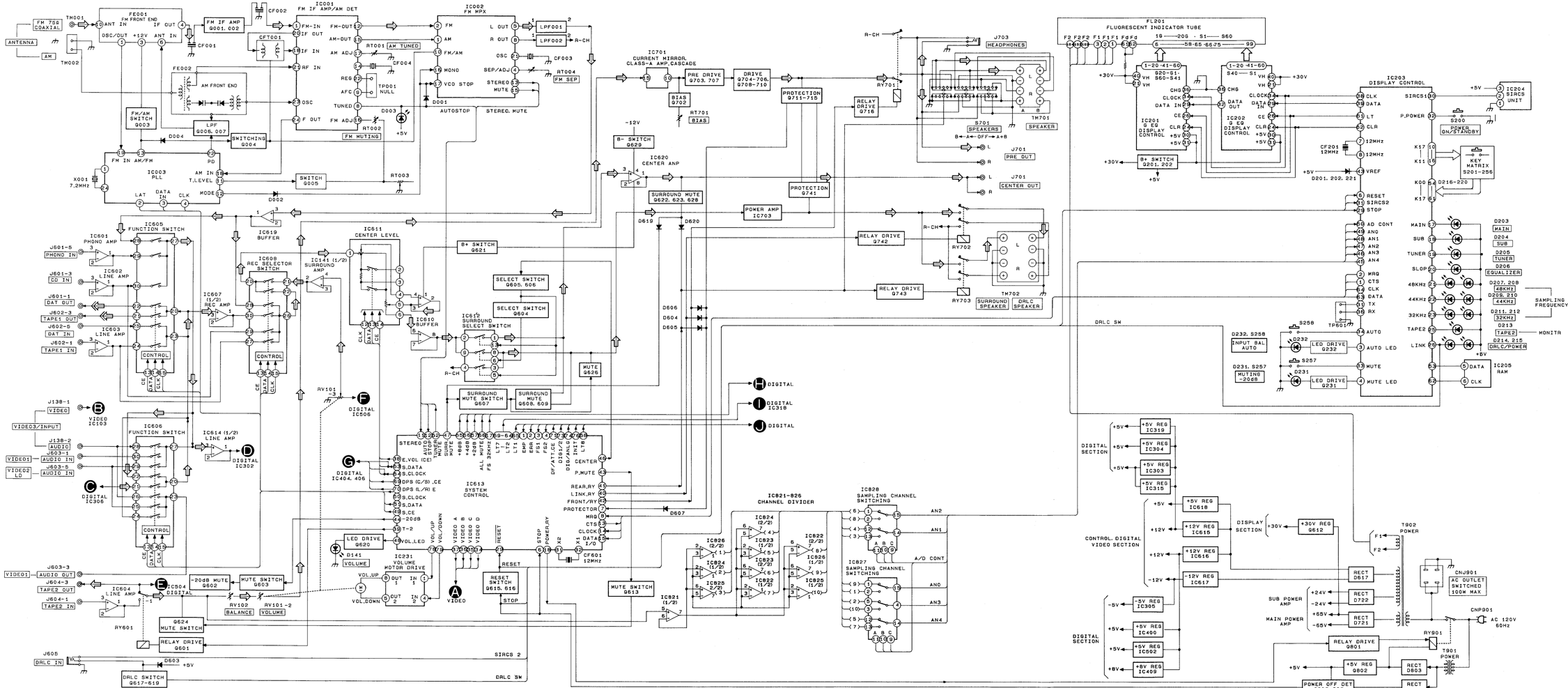


[Note on repair]

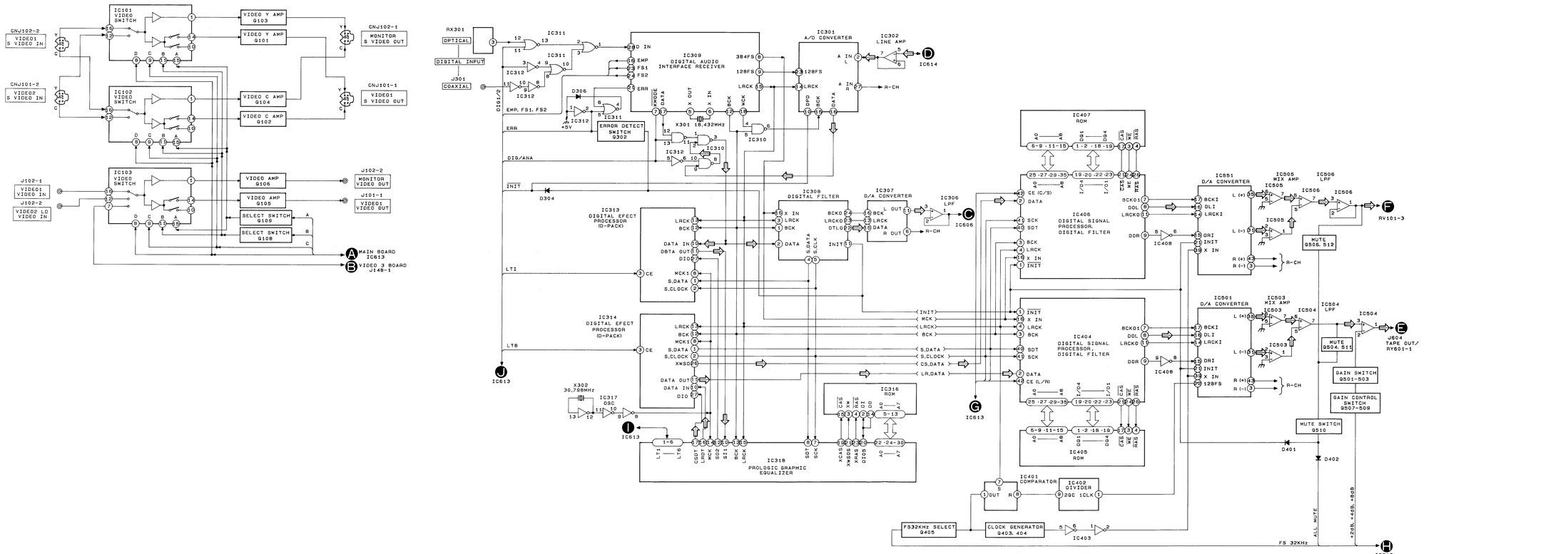
1. When replacing part on the main board (mear the foot), remove the power amp block and the back panel.
2. When replacing IC601, remove the tuner board.

STR-D2020 STR-D2020

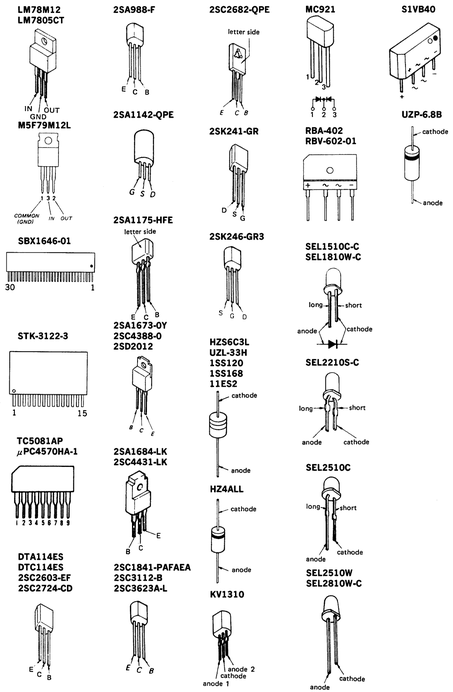
3-2. BLOCK DIAGRAM —Tuner/System control/Power Amp Section—



3-3. BLOCK DIAGRAM —Digital Section—



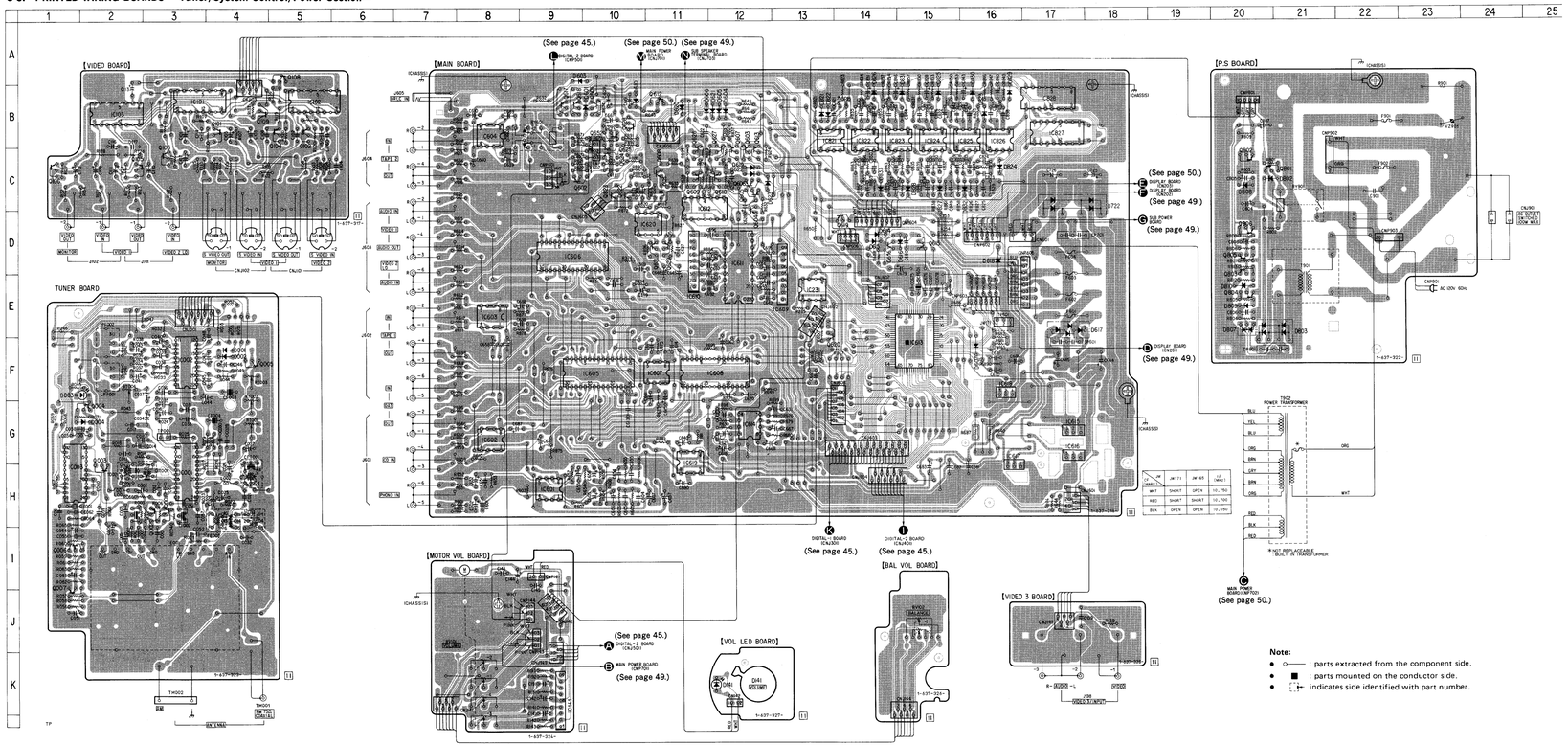
3-4. SEMICONDUCTOR LEAD LAYOUTS

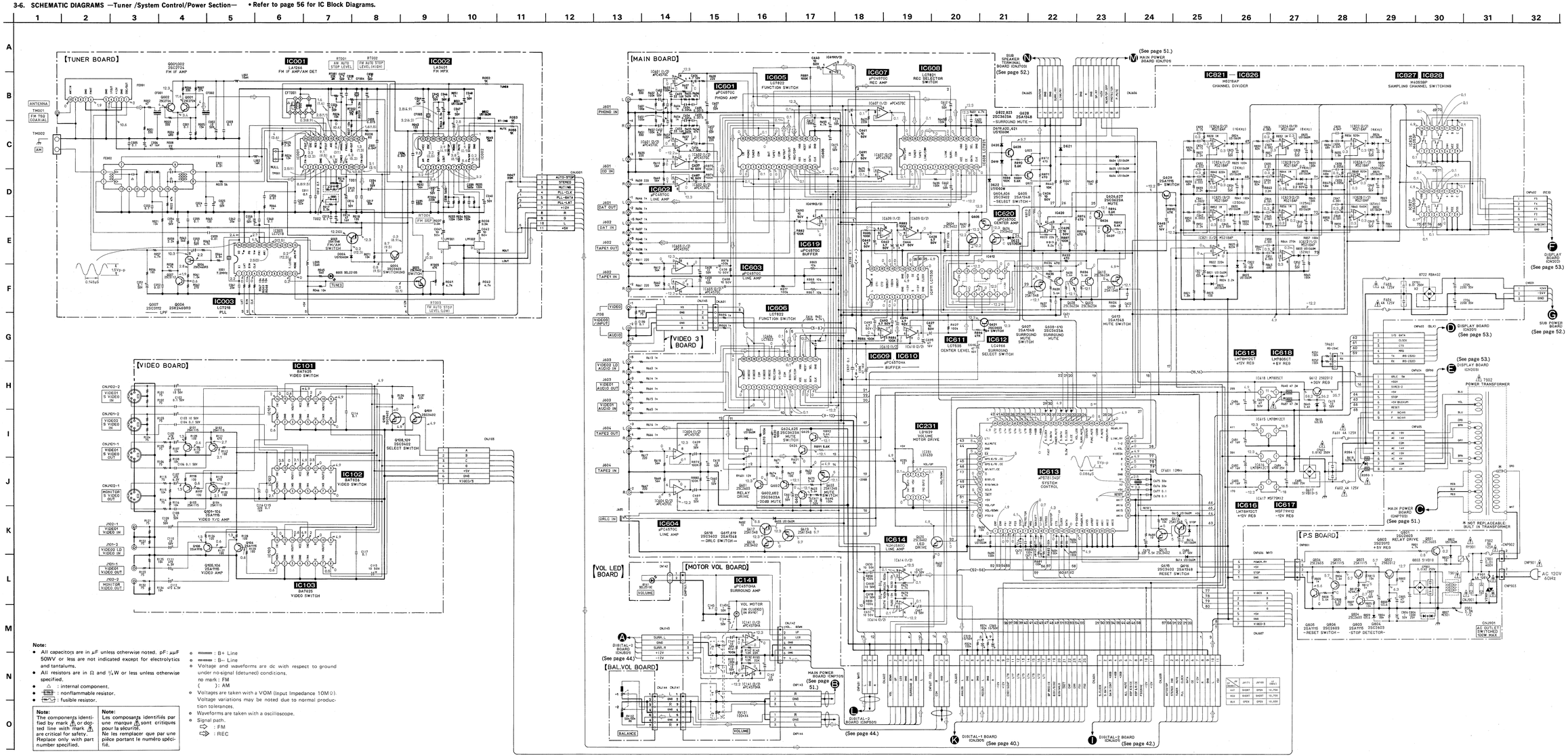


● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D001	F-4	IC615	G-17
D002	F-4	IC616	G-17
D003	F-1	IC617	H-16
D004	G-2	IC618	F-16
D141	K-12	IC619	H-11
D601	B-10	IC620	D-11
D603	A-9	IC821	B-13
D604	B-12	IC822	B-14
D605	B-12	IC823	B-14
D606	B-11	IC824	B-15
D607	F-16	IC825	B-16
D610	B-10	IC826	B-16
D614	D-14	IC827	B-17
D615	D-14	IC828	B-17
D616	D-15		
D617	E-17	Q001	H-3
D618	D-16	Q002	H-3
D619	C-12	Q003	H-2
D620	B-11	Q004	G-2
D621	B-12	Q005	F-4
D622	C-12	Q006	I-1
D623	C-12	Q007	J-1
D722	C-17	Q101	B-4
D802	C-20	Q102	B-5
D803	E-20	Q103	C-3
D807	E-20	Q104	B-5
D808	E-20	Q105	C-2
D809	E-20	Q106	C-1
D810	E-20	Q108	A-5
D821	B-13	Q109	B-4
D822	B-13	Q601	B-10
D823	B-16	Q602	C-9
D824	C-16	Q603	C-12
D825	B-15	Q604	C-12
D826	B-14	Q605	C-12
D827	C-15	Q606	C-12
D828	C-15	Q607	C-12
D829	B-16	Q608	C-11
D830	B-16	Q609	C-11
D831	B-15	Q610	C-12
D832	C-16	Q612	B-11
D833	C-14	Q613	C-12
		Q615	D-15
IC001	H-3	Q616	D-14
IC002	F-3	Q617	B-9
IC003	H-1	Q618	B-9
IC101	B-3	Q619	D-14
IC102	B-5	Q620	E-13
IC103	B-2	Q621	D-11
IC141	K-9	Q624	C-10
IC231	E-13	Q625	C-10
IC601	H-9	Q626	C-11
IC602	G-8	Q627	C-12
IC603	E-8	Q628	B-10
IC604	B-8	Q629	D-11
IC605	F-10	Q652	B-10
IC606	D-9	Q801	C-20
IC607	F-11	Q802	C-20
IC608	F-12	Q803	E-20
IC609	E-13	Q804	E-20
IC610	D-11	Q805	D-20
IC611	D-12	Q806	D-20
IC612	C-11	Q822	C-10
IC613	F-15	Q823	C-10
IC614	G-12		

3-5. PRINTED WIRING BOARDS —Tuner/System Control/Power Section—



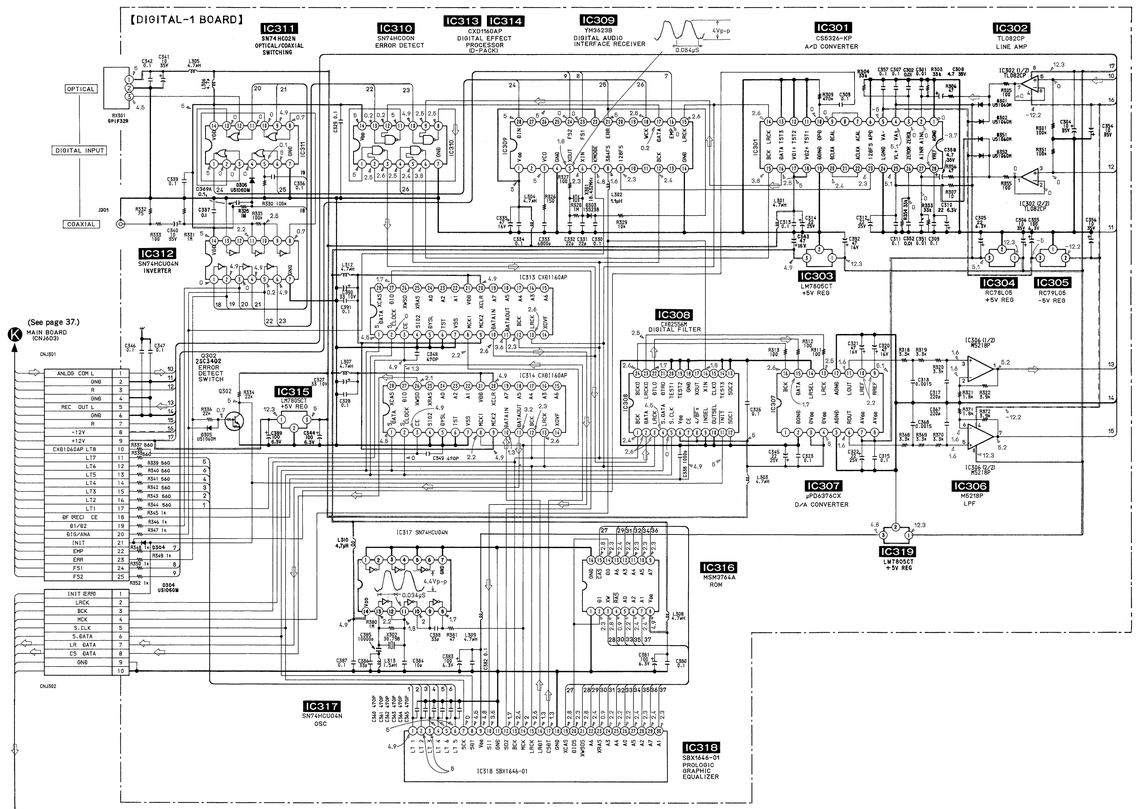


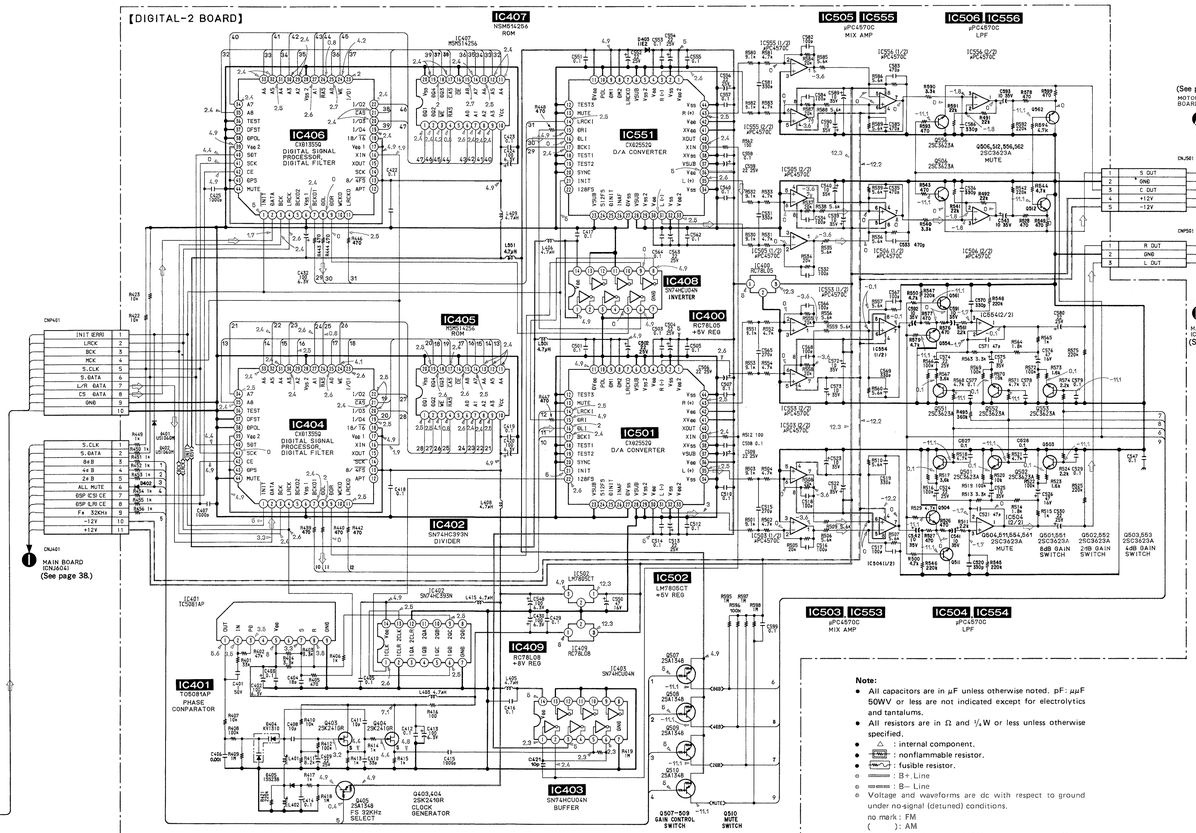
Note:
- All capacitors are in μF unless otherwise noted. pF: μμF. 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ═══ : B+ Line
- ═══ : B– Line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark : FM ( ) : AM
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Signal path. ⇨ : FM ⇨ : REC

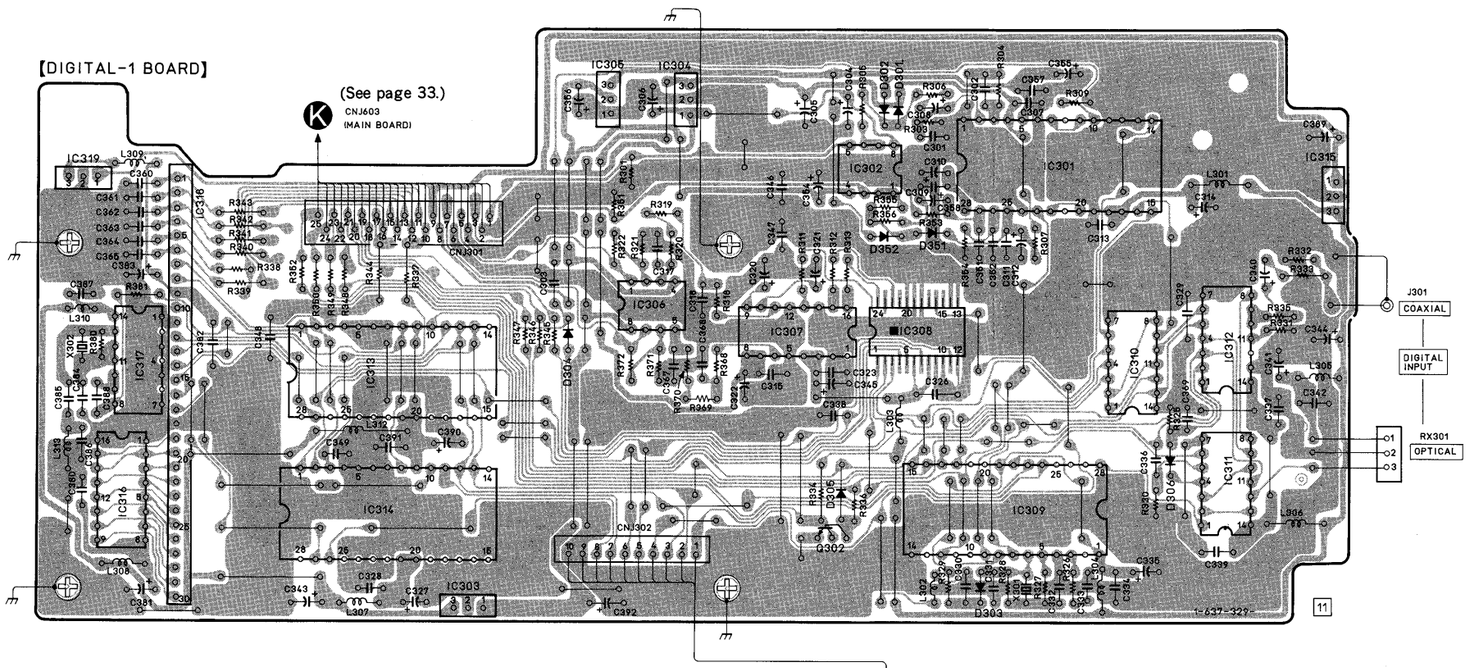



【DIGITAL-2 BOARD】
IC407 NSM514256 ROM
IC406 CXD1135Q DIGITAL SIGNAL PROCESSOR DIGITAL FILTER
IC404 CXD1135Q DIGITAL SIGNAL PROCESSOR DIGITAL FILTER
IC405 ROM
IC402 SN74HC393N DIVIDER
IC401 TC9281AP PHASE COMPARATOR
IC409 RC78L08 +8V REG
IC403 SN74HCU04N BUFFER
IC551 CXD2552Q D/A CONVERTER
IC501 CXD2552Q D/A CONVERTER
IC408 SN74HC02N INVERTER
IC400 RC78L05 +5V REG
IC502 LM7805CT +5V REG
IC505 IC555 μPC4570C MIX AMP
IC506 IC556 μPC4570C LPF
IC503 IC553 μPC4570C MIX AMP
IC504 IC554 μPC4570C LPF
Q406,502,556,562 2SC3423A MUTE
Q504,511,554,561 2SC3423A MUTE
Q501,551 2SC3423A 8dB GAIN SWITCH
Q502,552 2SC3423A 2dB GAIN SWITCH
Q503,553 2SC3423A 4dB GAIN SWITCH
Q507~509 GAIN CONTROL SWITCH
Q510 MUTE SWITCH
(See page 36.) MOTOR VOLUME BOARD (CNJ13)
MAIN BOARD (CNP501) (See page 37.)

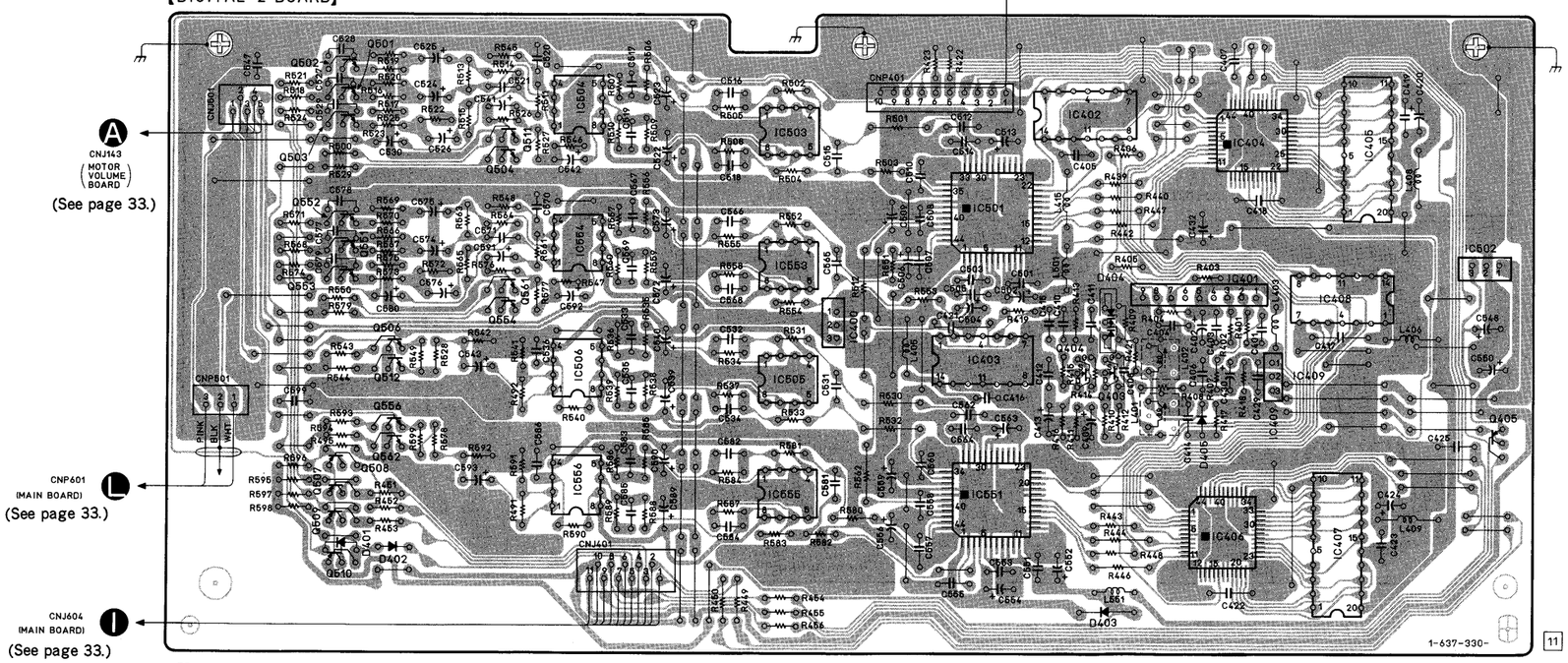
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- ⚠ : nonflammable resistor.
- ⚠ : fusible resistor.
- ⟐ ═══ : B+ Line
- ⟐ ═══ : B− Line
- ⟐ Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
- ⟐ Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- ⟐ Waveforms are taken with a oscilloscope.
- ⟐ Signal path.
  ⇨ : F.M
  ⇨ : REC

【DIGITAL-1 BOARD】



【DIGITAL-2 BOARD】



● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D301	B-8	Q504	G-4
D302	B-8	Q506	H-4
D303	E-9	Q507	I-3
D304	C-6	Q508	I-3
D305	D-8	Q509	J-3
D306	D-10	Q510	J-3
D351	B-8	Q511	G-4
D352	C-8	Q512	H-4
D401	J-3	Q551	H-3
D402	J-4	Q552	G-3
D403	J-9	Q553	H-3
D404	H-9	Q554	H-4
D405	I-9	Q556	I-4
		Q561	H-4
IC301	B-9	Q562	I-4
IC302	B-8		
IC303	E-5		
IC304	B-7		
IC305	B-6		
IC306	C-6		
IC307	C-7		
IC308	C-8		
IC309	D-9		
IC310	C-10		
IC311	D-10		
IC312	C-10		
IC313	C-4		
IC314	D-4		
IC315	B-11		
IC316	D-3		
IC317	C-3		
IC318	C-3		
IC319	B-2		
IC400	H-7		
IC401	H-9		
IC402	G-9		
IC403	H-8		
IC404	G-10		
IC405	G-11		
IC406	J-10		
IC407	J-10		
IC408	H-10		
IC409	H-10		
IC501	G-8		
IC502	H-11		
IC503	G-6		
IC504	G-5		
IC505	I-6		
IC506	H-5		
IC551	I-8		
IC553	H-6		
IC554	H-5		
IC555	I-6		
IC556	I-5		
Q302	E-8		
Q403	H-9		
Q404	H-9		
Q405	I-12		
Q501	F-3		
Q502	F-3		
Q503	G-3		

Note:

- ○—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.

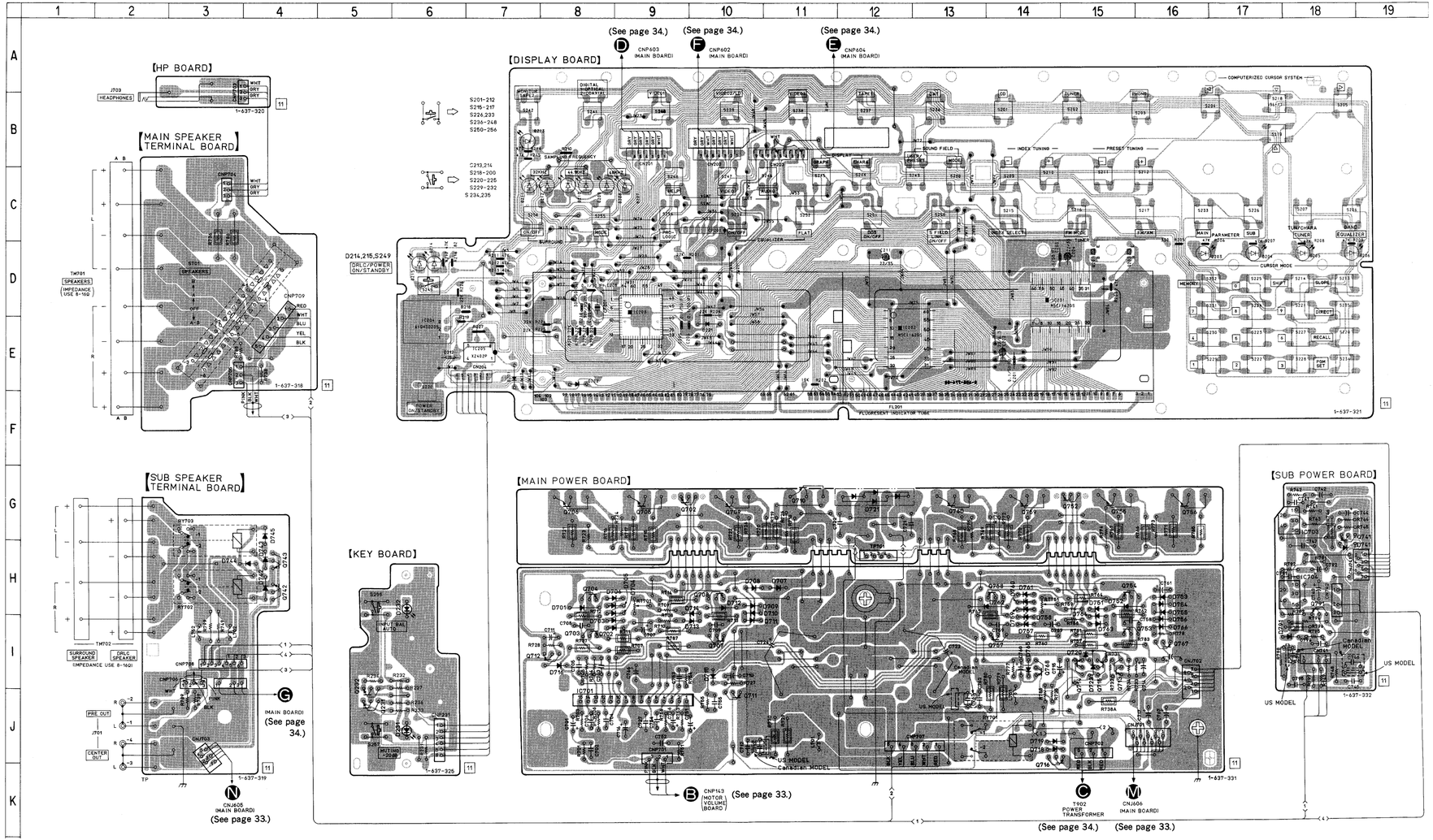
3-9. PRINTED WIRING BOARDS —Power Amp/Display Section—

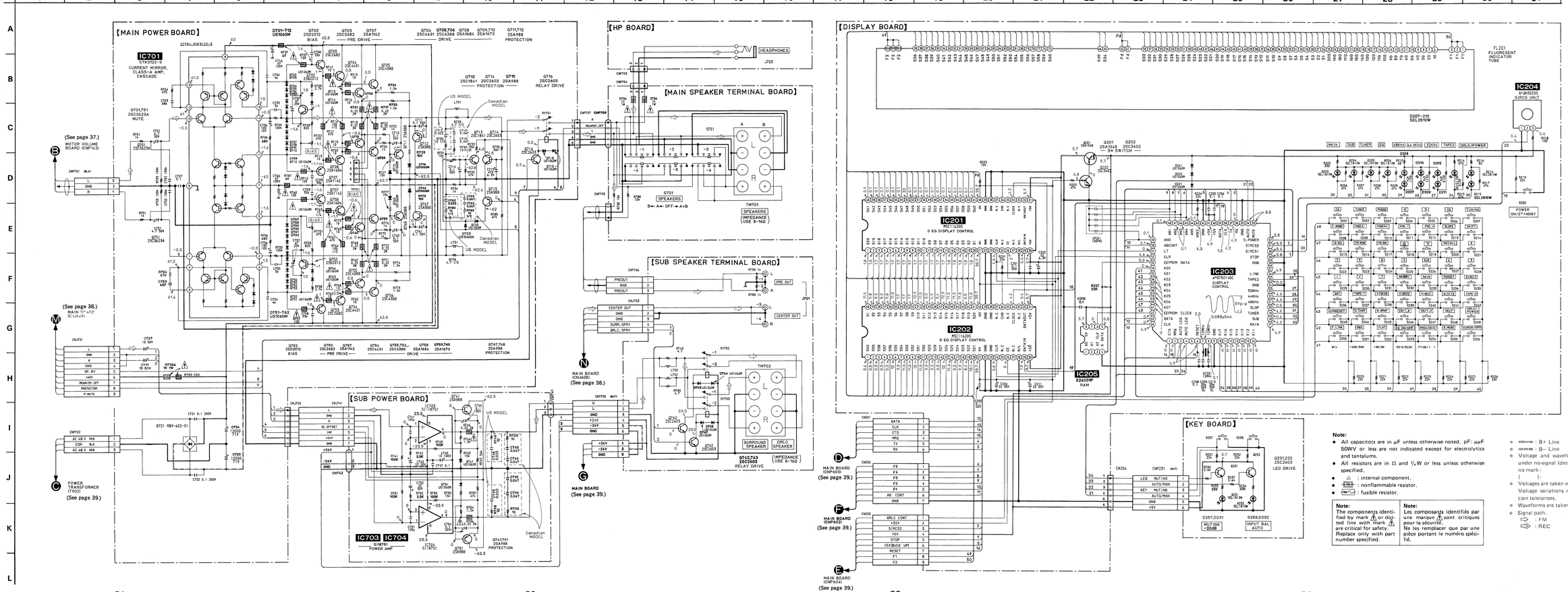
• Semiconductor Location

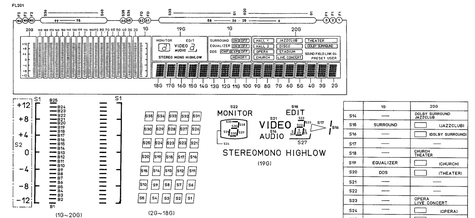
Ref. No.	Location	Ref. No.	Location
D201	E-7	IC201	D-14
D202	E-8	IC202	E-12
D203	D-16	IC203	D-9
D204	D-17	IC204	E-6
D205	D-18	IC205	E-6
D206	D-18	IC701	J-8
D207	C-8	IC703	G-17
D208	C-8	IC704	H-17
D209	C-8		
D210	C-8	Q201	D-15
D211	C-7	Q202	D-15
D212	C-7	Q231	J-5
D213	B-7	Q232	J-5
D214	D-6	Q702	G-9
D215	D-6	Q703	I-8
D221	E-10	Q704	H-8
D231	J-5	Q705	G-9
D232	H-5	Q706	G-8
D701	H-8	Q707	I-10
D702	I-8	Q708	H-10
D703	I-8	Q709	G-10
D704	H-8	Q710	G-11
D705	H-8	Q711	J-10
D706	H-8	Q712	I-7
D707	H-10	Q713	I-15
D708	H-10	Q714	I-15
D709	H-10	Q715	I-15
D710	H-10	Q716	J-14
D711	I-10	Q741	G-18
D712	H-10	Q742	H-4
D713	I-9	Q743	H-4
D714	H-9	Q752	G-14
D715	I-10	Q753	I-15
D716	I-8	Q754	H-15
D718	J-14	Q755	G-15
D719	J-14	Q756	G-16
D720	I-15	Q757	I-13
D721	G-12	Q758	H-13
D723	I-15	Q759	G-14
D741	H-18	Q760	G-13
D742	H-4	Q767	I-16
D743	H-4	Q768	I-14
D744	H-3	Q791	H-18
D745	G-4		
D751	H-15		
D752	H-15		
D753	H-16		
D754	H-16		
D755	H-16		
D756	I-16		
D757	I-14		
D758	I-14		
D759	H-14		
D760	H-14		
D761	H-14		
D762	H-13		
D763	I-15		
D764	I-15		
D765	I-14		
D766	I-16		
D791	I-17		

Note:

- ○—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.







	10	200
S15	——	DOLBY SURROUND MUSIC ON
S16	SURROUND	LIVE CONCERT
S17	——	DOLBY SURROUND
S18	——	——
S19	EQUALIZER	CHURCH
S20	DDS	THEATER
S21	——	——
S22	——	——
S23	——	OPERA LIVE CONCERT
S24	——	OPERA
S25	——	LIVE CONCERT
S26	——	SOUND FIELD
S27	——	LINK ON
S28	DDS (SURROUND)	HALL STADIUM
S29	SHIFT (SURROUND)	HALL
S30	ON (EQUALIZER)	STADIUM
S31	SHIFT (EQUALIZER)	PRESET

Note:
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- : internal component.
- : nonflammable resistor.
- : fusible resistor.

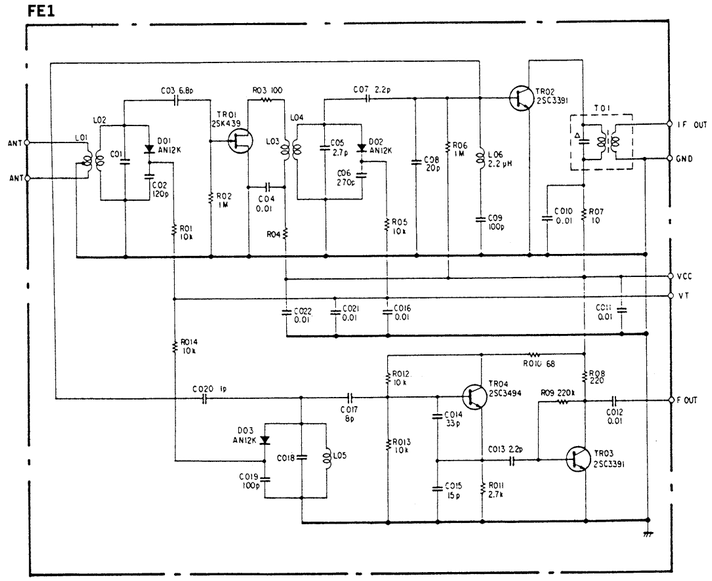
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line
- : B– Line
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark : ( ):
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Signal path. ⇨ : FM ⇨ : REC

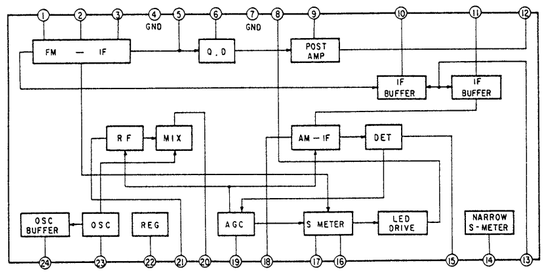
• **FE1 (Front End) Schematic diagrams**

FE1

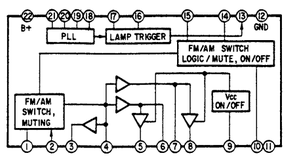


• **IC Block Diagrams**

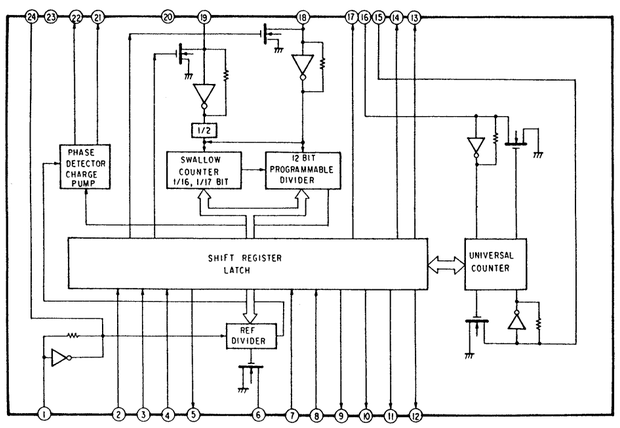
IC001 LA1266



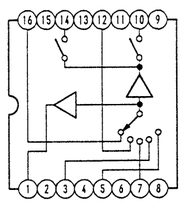
IC002 LA3401



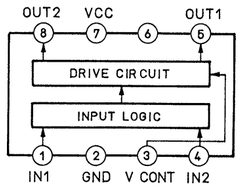
IC003 LC7218



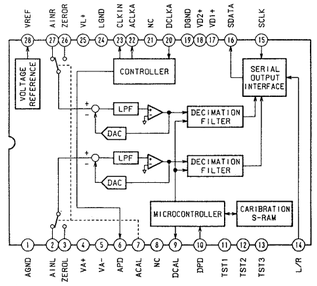
IC101, 103 BA7625



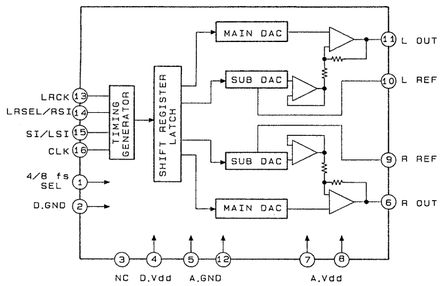
IC231 LB1639



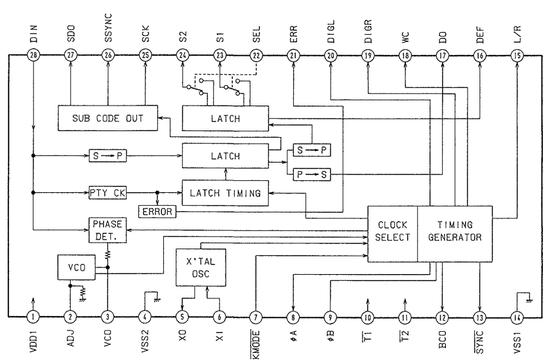
IC301 CS5326-KP



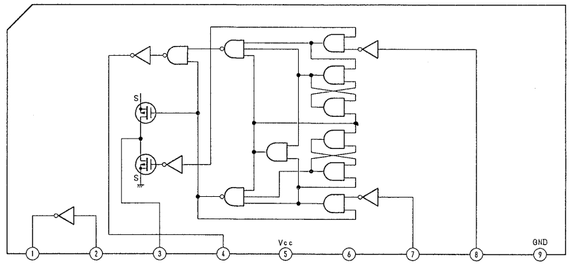
IC307 µPD6376CX



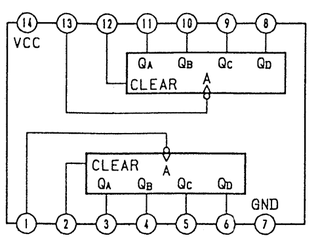
IC309 YM3623B



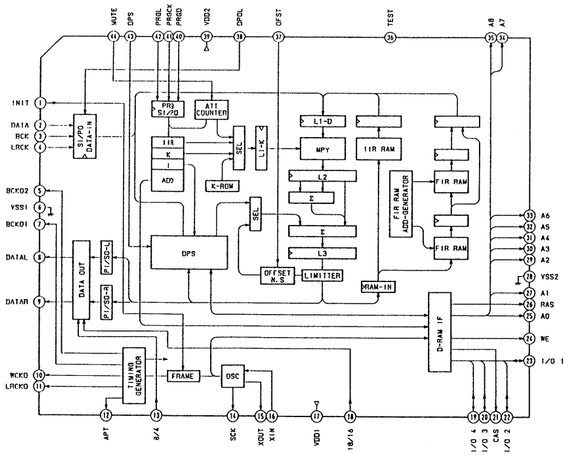
IC401 TC5081AP



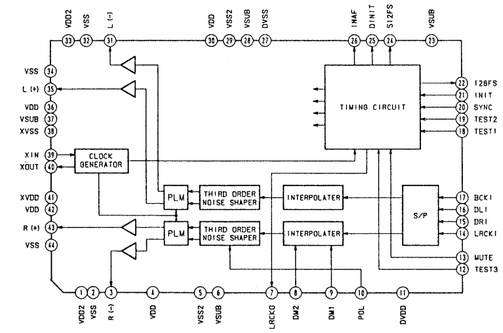
IC402 TC74HC393N



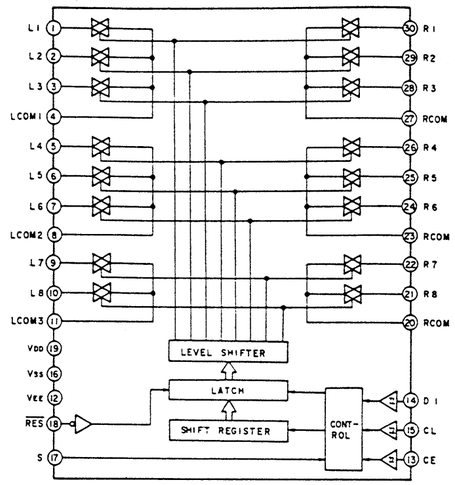
IC404,406 CXD1355Q



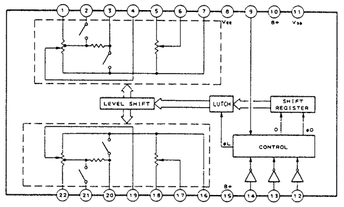
IC501, 551 CXD2552Q



IC605, 606 LC7822



IC611 LC7535



IC313, 314 Digital • Audio Signal Processing LSIs CXD1160 AP

These are digital • audio signal processing LSIs which incorporate instruction RAM, coefficient RAM, data RAM, multiplier and level shifter and are equipped with serial I/O, delay I/O (max. capability : stereo 1024 sampling • delay) and microcomputer interface for peripheral devices.

Pin No.	Symbol	I/O	Description
1	SDT	I	Serial • data input terminal to receive instructions, coefficients, I/O controls transferred from the microcomputer.
2	SCK	I	SDT serial • clock input terminal to fetches in data at a rise.
3	XSLD	I	Input terminal for a latch signal from the system microcomputer to latch serial • data inside the IC. LOW active (LCK for DPAC1).
4	SIO2	I	Input terminal to set the number of serial bit clocks BCK in each channels (ch1 or ch2) data transfer in one sampling section. 32-bit clock mode when fixed at GND, and 24-bit clock mode when fixed at +5V. (32 bits for this set)
5	DYSL	I	Delay I/O mode selector input terminal. Serial mode when fixed at GND, and similar operation to serial I/O. Delay mode when fixed at +5V, and a delay line equivalent to 2-channels is configured by connecting to external DRAM (64kbits).
6	TST	I	Test pin. Normally, fix at GND.
7	VSS		GND terminal.
8	MCK1	I	Master clock input 1. The master clock ACK inside the IC is half this frequency. Fix MCK2 at +5V when inputting the master clock from MCK2.
9	MCK2	I	Master clock input 2. The master clock ACK inside the IC is the same frequency as this. Fix MCK1 at +5V or GND when inputting the master clock from MCK 2.
10	SI	I	1-sampling 2-channel serial data input terminal.
11	SO	O	1-sampling 2-channel serial data output terminal.
12	BCK	I	Serial bit clock input terminal for SI and SO. Serial input data is fetched in at a rise of this BCK and output data is sent out. (64FS)
13	LRCK	I	FS clock input terminal for I/O (1FS)
14	XOVF	O	Adder/subtracter overflow detection output. "L" at overflow time.
15	A6	O	External DRAM address output A6
16	A3	O	External DRAM address output A3
17	A4	O	External DRAM address output A4
18	A5	O	External DRAM address output A5
19	A7	O	External DRAM address output A7
20	XCLR	I	Test pin. Normally, fix at +5V.
21	VDD	—	+5V power supply terminal.
22	A1	O	External DRAM address output A1
23	A2	O	External DRAM address output A2
24	A0	O	External DRAM address output A0
25	XRAS	O	Low address • strobe output terminal for external DRAM.
26	XWSO	O	Serves as a serial data output terminal when DYSL is at "L", and works in accordance with each serial I/O mode. Serves as an external DRAM write enable output terminal when DYSL is at "H".
27	DIO	I/O	Serves as a serial data input terminal when DYSL is at "L", and fetches in data ds accordance with each serial I/O mode. When DYSL is at "H", it serves as an external DRAM data input/output terminal to be used as a common line for data input D_{IN} and data output D_{OUT}.
28	XCAS	O	Column address strobe output terminal for external DRAM.

IC318 SBX1646-01

Pin No.	Symbol	I/O	Description
1	LT1	I	Latch1
2	LT2	I	Latch2
3	LT3	I	Latch3
4	LT4	I	Latch4
5	LT6	I	Latch6
6	LT5	I	Latch5
7	SCK	I	SDT serial • clock input terminal to fetches in data at a rise.
8	SDT	I	Serial • data input terminal to receive instructions, coefficients I/O controls transferred from the microcomputer.
9	VDD	—	+5V power supply terminal.
10	SI1	I	1-sampling 2-channel serial data input terminal.
11	GND	—	GND terminal.
12	SO2	O	1-sampling 2-channel serial data output terminal.
13	BCK	I	Serial bit clock input terminal for and so. serial input data is fetched in at rise of this BCK and output data is sent out. (64FS)
14	MCK	I	Master clock input1. The master clock ACK inside the IC is half this frequency. Fix MCK2 at +5V when inputting the master clock from MCK2.
15	LRCK	I	FS clock input terminal for I/O (1FS)
16	LRDT	O	Front L, Rch data out
17	CSDT	O	Center surround data out
18	GND	—	GND terminal
19	XCAS	O	Column address Strobe output terminal for external DRAM.
20	DI05	I/O	Serves as a serial data input terminal when DYSL is at "L" , and fetches in data ds accordance with each serial I/O mode. When DYSL is at "H", it serves as an external DRAM data input/output terminal to be used as a Common line for data input DIN and data output Dout.
21	XWS05	O	Serves as a serial data output terminal when DYSL is at "L", and works in accordance with each serial I/O mode. Serves as an external DRAM write enable output terminal when DYSL is at "H".
22	A6	O	External DRAM address output A6
23	XRAS	O	Low address • strobe output terminal for external DRAM.
24	A3	O	External DRAM address output A3
25	A4	O	External DRAM address output A4
26	A0	O	External DRAM address output A0
27	A5	O	External DRAM address output A5
28	A2	O	External DRAM address output A2
29	A7	O	External DRAM address output A7
30	A1	O	External DRAM address output A1

SECTION 4
EXPLODED VIEWS

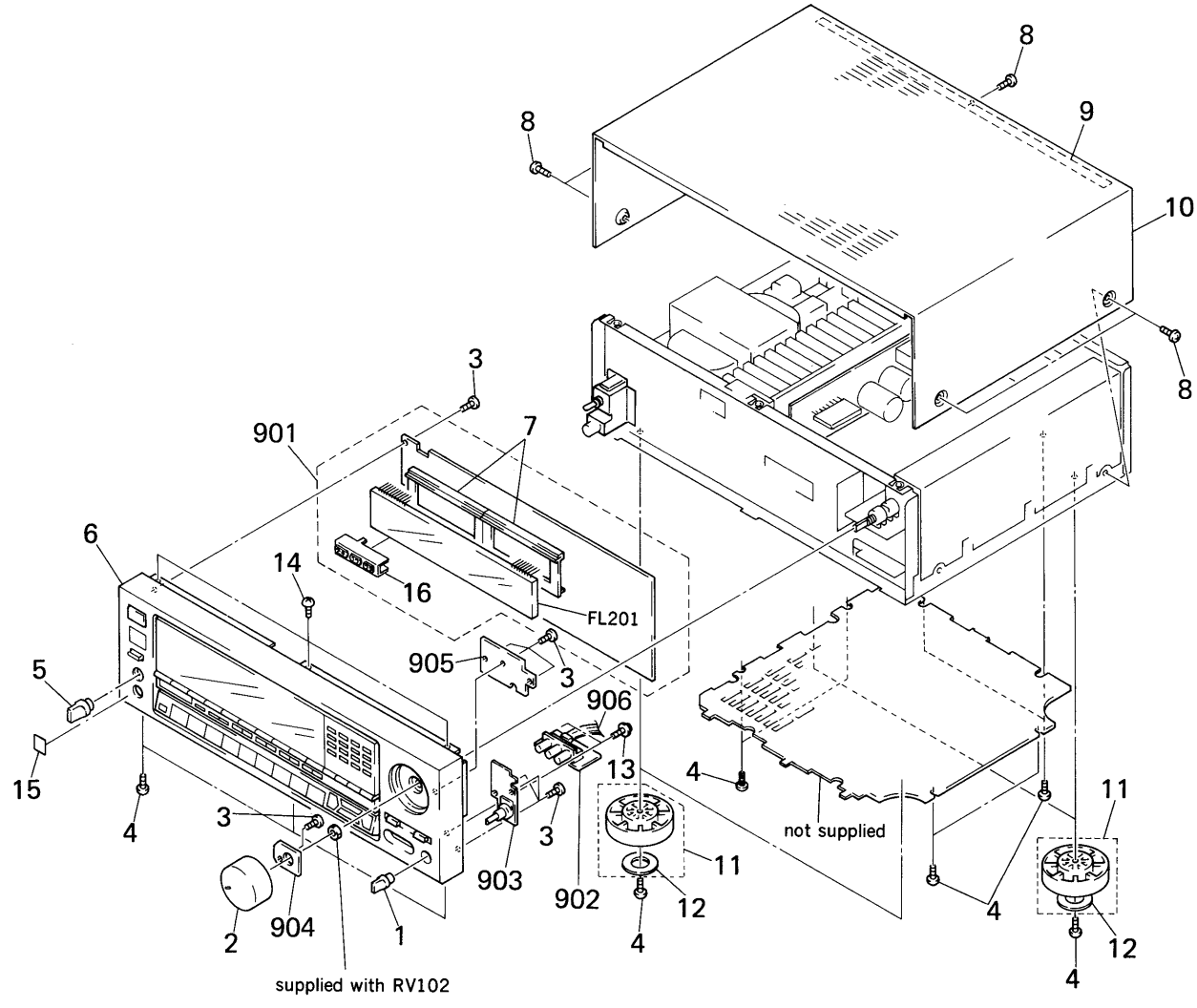
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts' Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

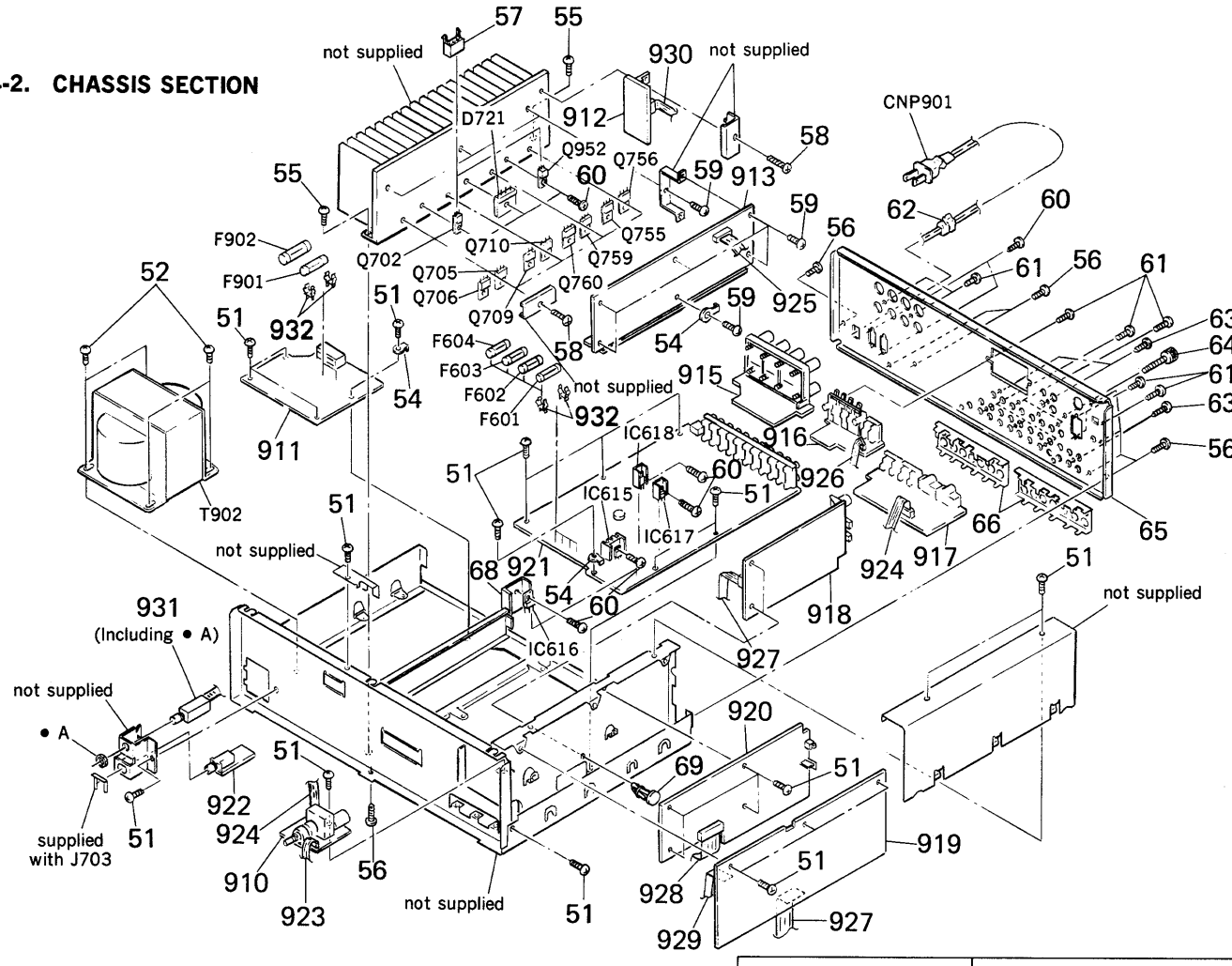
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifé.

4-1. FRONT PANEL SECTION



No.	Part No.	Description	Remarks
1	4-925-014-01	KNOB (DIA.10)	
2	X-4906-828-1	KNOB (47) ASSY	
3	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
4	7-682-548-04	SCREW +BVTT 3X8 (S)	
5	4-908-097-21	KNOB	
6	A-4323-617-A	PANEL (BASE) ASSY	
7	4-938-529-01	HOLDER, FL TUBE	
8	3-704-366-01	SCREW (CASE) (M3X8)	
9	*4-931-060-11	SPACER (0.2)	
10	4-931-031-11	CASE	
11	X-4885-950-1	FOOT ASSY	
12	4-923-836-11	CUSHION	
13	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S	
14	7-682-547-04	SCREW +BVTT 3X6 (S)	
15	*3-703-710-41	STICKER, SONY SYMBOL (12)	
16	*4-942-116-01	HOLDER (LED)	
901	*A-4334-970-A	MOUNTED PCB, DISPLAY	
902	1-637-328-11	PC BOARD, VIDEO 3	
903	1-637-326-11	PC BOARD, BAL.VOL	
904	1-637-327-11	PC BOARD, VOL LED	
905	1-637-325-11	PC BOARD, KEY	
906	1-575-730-11	WIRE, FLAT TYPE (5 CORE)	

4-2. CHASSIS SECTION



Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

No.	Part No.	Description	Remarks
51	7-682-547-04	SCREW +BVTT 3X6 (S)	
52	7-682-561-04	SCREW +BVTT 4X8 (S)	
54	4-870-539-00	PLATE, GROUND	
55	7-682-548-04	SCREW +BVTT 3X8 (S)	
56	7-682-547-09	SCREW +BVTT 3X6 (S)	
57	*1-562-327-00	SOCKET, CONNECTOR 3P	
58	7-685-649-71	SCREW +BVTP 3X14 TYPE2 IT-3	
59	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
60	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S	
61	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
62	*3-703-244-00	BUSHING (2104), CORD	
63	7-621-849-00	SCREW, TAPPING	
64	3-706-165-00	SCREW	
65	*4-931-996-01	(US).....PANEL, BACK	
	*4-931-996-11	(Canadian)...PANEL, BACK	
66	*4-928-467-01	PLATE (12P), SHIELD	
68	*4-880-403-11	HEAT SINK	
69	*4-912-181-11	SUPPORT, PC	
910	1-637-324-11	PC BOARD, MOTOR VOL	
911	*A-4334-971-A	MOUNTED PCB, POWER SUPPLY	
912	*A-4334-980-A	(US).....MOUNTED PCB, AMPLIFIER	
	*A-4341-293-A	(Canadian)...MOUNTED PCB, AMPLIFIER	
913	*A-4334-979-A	(US).....MOUNTED PCB, AMPLIFIER	
	*A-4341-292-A	(Canadian)...MOUNTED PCB, AMPLIFIER	

No.	Part No.	Description	Remarks
915	1-637-318-11	PC BOARD, MAIN SPEAKER TERMINAL	
916	1-637-319-11	PC BOARD, SUB SPEAKER TERMINAL	
917	*A-4334-982-A	MOUNTED PCB, VIDEO	
918	*A-4334-972-A	MOUNTED PCB, TUNER	
919	*A-4334-978-A	MOUNTED PCB, DIGITAL-2	
920	*A-4334-977-A	MOUNTED PCB, DIGITAL-1	
921	*A-4334-981-A	MOUNTED PCB, MAIN	
922	1-637-320-11	PC BOARD, HP	
923	1-590-033-11	WIRE, FLAT TYPE (7 CORE)	
924	*1-590-239-11	WIRE, FLAT TYPE (7 CORE)	
925	*1-590-240-11	WIRE, FLAT TYPE (9 CORE)	
926	1-575-664-11	WIRE, FLAT TYPE (5 CORE)	
927	*1-590-241-11	WIRE, FLAT TYPE (11 CORE)	
928	*1-590-242-11	WIRE, FLAT TYPE (25 CORE)	
929	1-575-664-11	WIRE, FLAT TYPE (5 CORE)	
930	*1-590-238-11	WIRE, FLAT TYPE (7 CORE)	
931	1-572-465-11	SWITCH, ROTARY SLIDE	
932	*1-533-213-31	HOLDER, FUSE	
CNP901	⚠1-575-105-11	CORD, POWER	
F601	⚠.1-532-598-00	FUSE, GLASS TUBE (125V/4A)	
F602	⚠.1-532-598-00	FUSE, GLASS TUBE (125V/4A)	
F603	⚠.1-532-598-00	FUSE, GLASS TUBE (125V/4A)	
F604	⚠.1-532-598-00	FUSE, GLASS TUBE (125V/4A)	
F901	⚠.1-532-598-00	FUSE, GLASS TUBE (125V/4A)	
F902	⚠.1-532-749-11	FUSE, GLASS TUBE (125V/8A)	
T902	⚠.1-450-144-11	TRANSFORMER, POWER	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
901	*A-4334-970-A	MOUNTED PCB, DISPLAY
902	1-637-328-11	PC BOARD, VIDEO 3
903	1-637-326-11	PC BOARD, BAL.VOL
904	1-637-327-11	PC BOARD, VOL LED
905	1-637-325-11	PC BOARD, KEY
906	1-575-730-11	WIRE, FLAT TYPE (5 CORE)
910	1-637-324-11	PC BOARD, MOTOR VOL
911	*A-4334-971-A	MOUNTED PCB, POWER SUPPLY
912	*A-4334-980-A	(US).....MOUNTED PCB, AMPLIFIER
	*A-4341-293-A	(Canadian)...MOUNTED PCB, AMPLIFIER
913	*A-4334-979-A	(US).....MOUNTED PCB, AMPLIFIER
	*A-4341-292-A	(Canadian)...MOUNTED PCB, AMPLIFIER
915	1-637-318-11	PC BOARD, MAIN SPEAKER TERMINAL
916	1-637-319-11	PC BOARD, SUB SPEAKER TERMINAL
917	*A-4334-982-A	MOUNTED PCB, VIDEO
918	*A-4334-972-A	MOUNTED PCB, TUNER
919	*A-4334-978-A	MOUNTED PCB, DIGITAL-2
920	*A-4334-977-A	MOUNTED PCB, DIGITAL-1
921	*A-4334-981-A	MOUNTED PCB, MAIN
922	1-637-320-11	PC BOARD, HP
923	1-590-033-11	WIRE, FLAT TYPE (7 CORE)
924	*1-590-239-11	WIRE, FLAT TYPE (7 CORE)
925	*1-590-240-11	WIRE, FLAT TYPE (9 CORE)
926	1-575-664-11	WIRE, FLAT TYPE (5 CORE)
927	*1-590-241-11	WIRE, FLAT TYPE (11 CORE)
928	*1-590-242-11	WIRE, FLAT TYPE (25 CORE)
929	1-575-664-11	WIRE, FLAT TYPE (5 CORE)
930	*1-590-238-11	WIRE, FLAT TYPE (7 CORE)
931	1-572-465-11	SWITCH, ROTARY SLIDE
932	*1-533-213-31	HOLDER, FUSE

C001	1-164-159-11	CERAMIC	0.1MF		50V
C002	1-123-875-11	ELECT	10MF	20%	50V
C003	1-164-159-11	CERAMIC	0.1MF		50V
C005	1-164-159-11	CERAMIC	0.1MF		50V
C006	1-124-477-11	ELECT	47MF	20%	16V
C011	1-164-159-11	CERAMIC	0.1MF		50V
C012	1-164-159-11	CERAMIC	0.1MF		50V
C013	1-164-159-11	CERAMIC	0.1MF		50V
C014	1-124-477-11	ELECT	47MF	20%	16V
C015	1-161-379-00	CERAMIC	0.01MF	30%	16V
C016	1-124-791-11	ELECT	1MF	20%	50V
C017	1-162-211-31	CERAMIC	33PF	5%	50V
C021	1-161-379-00	CERAMIC	0.01MF	30%	16V
C024	1-164-159-11	CERAMIC	0.1MF		50V
C025	1-123-875-11	ELECT	10MF	20%	50V

Ref.No.	Part No.	Description			
C026	1-124-927-11	ELECT	4.7MF	20%	50V
C027	1-124-927-11	ELECT	4.7MF	20%	50V
C028	1-164-159-11	CERAMIC	0.1MF		50V
C030	1-124-927-11	ELECT	4.7MF	20%	50V
C031	1-136-161-00	FILM	0.047MF	5%	50V
C032	1-164-159-11	CERAMIC	0.1MF		50V
C033	1-136-155-00	FILM	0.015MF	5%	50V
C034	1-123-875-11	ELECT	10MF	20%	50V
C035	1-162-288-31	CERAMIC	330PF	10%	50V
C036	1-136-161-00	FILM	0.047MF	5%	50V
C037	1-123-875-11	ELECT	10MF	20%	50V
C038	1-130-468-00	MYLAR	560PF	5%	50V
C039	1-130-468-00	MYLAR	560PF	5%	50V
C040	1-124-791-11	ELECT	1MF	20%	50V
C041	1-123-875-11	ELECT	10MF	20%	50V
C042	1-123-875-11	ELECT	10MF	20%	50V
C044	1-124-477-11	ELECT	47MF	20%	16V
C045	1-124-902-00	ELECT	0.47MF	20%	50V
C046	1-124-791-11	ELECT	1MF	20%	50V
C047	1-124-791-11	ELECT	1MF	20%	50V
C048	1-124-791-11	ELECT	1MF	20%	50V
C051	1-124-463-00	ELECT	0.1MF	20%	50V
C052	1-161-379-00	CERAMIC	0.01MF	30%	16V
C053	1-124-925-11	ELECT	2.2MF	20%	50V
C054	1-123-875-11	ELECT	10MF	20%	50V
C055	1-164-159-11	CERAMIC	0.1MF		50V
C056	1-161-379-00	CERAMIC	0.01MF	30%	16V
C057	1-162-207-31	CERAMIC	22PF	5%	50V
C058	1-123-875-11	ELECT	10MF	20%	50V
C059	1-161-379-00	CERAMIC	0.01MF	30%	16V
C060	1-164-159-11	CERAMIC	0.1MF		50V
C061	1-162-206-31	CERAMIC	20PF	5%	50V
C062	1-162-206-31	CERAMIC	20PF	5%	50V
C101	1-123-875-11	ELECT	10MF	20%	50V
C102	1-136-165-00	FILM	0.1MF	5%	50V
C103	1-123-875-11	ELECT	10MF	20%	50V
C104	1-136-165-00	FILM	0.1MF	5%	50V
C105	1-124-472-11	ELECT	470MF	20%	6.3V
C106	1-136-165-00	FILM	0.1MF	5%	50V
C107	1-124-472-11	ELECT	470MF	20%	6.3V
C108	1-136-165-00	FILM	0.1MF	5%	50V
C109	1-123-875-11	ELECT	10MF	20%	50V
C110	1-123-875-11	ELECT	10MF	20%	50V
C111	1-124-472-11	ELECT	470MF	20%	6.3V
C112	1-124-472-11	ELECT	470MF	20%	6.3V
C113	1-123-875-11	ELECT	10MF	20%	50V

Ref.No.	Part No.	Description			
C114	1-164-159-11	CERAMIC	0.1MF		50V
C115	1-164-159-11	CERAMIC	0.1MF		50V
C116	1-124-120-11	ELECT	220MF	20%	16V
C117	1-164-159-11	CERAMIC	0.1MF		50V
C139	1-164-159-11	CERAMIC	0.1MF		50V
C141	1-123-875-11	ELECT	10MF	20%	50V
C142	1-123-875-11	ELECT	10MF	20%	50V
C143	1-124-791-11	ELECT	1MF	20%	50V
C144	1-124-791-11	ELECT	1MF	20%	50V
C145	1-164-159-11	CERAMIC	0.1MF		50V
C191	1-123-875-11	ELECT	10MF	20%	50V
C201	1-164-159-11	CERAMIC	0.1MF		50V
C202	1-124-638-11	ELECT	22MF	20%	6.3V
C203	1-164-159-11	CERAMIC	0.1MF		50V
C204	1-123-357-00	ELECT	22MF	20%	35V
C205	1-164-159-11	CERAMIC	0.1MF		50V
C206	1-164-159-11	CERAMIC	0.1MF		50V
C208	1-164-159-11	CERAMIC	0.1MF		50V
C209	1-162-210-31	CERAMIC	30PF	5%	50V
C210	1-162-210-31	CERAMIC	30PF	5%	50V
C211	1-123-357-00	ELECT	22MF	20%	35V
C212	1-164-159-11	CERAMIC	0.1MF		50V
C301	1-136-153-00	FILM	0.01MF	5%	50V
C302	1-162-306-11	CERAMIC	0.01MF	20%	16V
C303	1-164-159-11	CERAMIC	0.1MF		50V
C304	1-126-096-11	ELECT	10MF	20%	35V
C305	1-124-638-11	ELECT	22MF	20%	6.3V
C306	1-126-096-11	ELECT	10MF	20%	35V
C307	1-164-159-11	CERAMIC	0.1MF		50V
C308	1-126-163-11	ELECT	4.7MF	20%	35V
C309	1-164-159-11	CERAMIC	0.1MF		50V
C310	1-124-638-11	ELECT	22MF	20%	6.3V
C311	1-164-159-11	CERAMIC	0.1MF		50V
C312	1-124-598-11	ELECT	22MF	20%	25V
C313	1-164-159-11	CERAMIC	0.1MF		50V
C314	1-124-598-11	ELECT	22MF	20%	25V
C315	1-164-159-11	CERAMIC	0.1MF		50V
C317	1-162-286-31	CERAMIC	220PF	10%	50V
C318	1-106-347-00	MYLAR	0.0015MF	5%	50V
C319	1-123-875-11	ELECT	10MF	20%	50V
C320	1-124-589-11	ELECT	47MF	20%	16V
C321	1-124-589-11	ELECT	47MF	20%	16V
C322	1-124-598-11	ELECT	22MF	20%	25V
C323	1-164-159-11	CERAMIC	0.1MF		50V
C326	1-164-159-11	CERAMIC	0.1MF		50V
C327	1-124-229-00	ELECT	33MF	20%	10V
C328	1-164-159-11	CERAMIC	0.1MF		50V
C329	1-164-159-11	CERAMIC	0.1MF		50V
C330	1-164-159-11	CERAMIC	0.1MF		50V
C331	1-162-207-31	CERAMIC	22PF	5%	50V
C332	1-162-207-31	CERAMIC	22PF	5%	50V
C333	1-106-363-00	MYLAR	0.0068MF	5%	50V
C334	1-164-159-11	CERAMIC	0.1MF		50V
C335	1-124-589-11	ELECT	47MF	20%	16V
C336	1-164-159-11	CERAMIC	0.1MF		50V
C337	1-164-159-11	CERAMIC	0.1MF		50V
C338	1-162-294-31	CERAMIC	0.001MF	10%	50V

Ref.No.	Part No.	Description			
C339	1-164-159-11	CERAMIC	0.1MF		50V
C340	1-126-096-11	ELECT	10MF	20%	35V
C341	1-126-096-11	ELECT	10MF	20%	35V
C342	1-164-159-11	CERAMIC	0.1MF		50V
C343	1-124-589-11	ELECT	47MF	20%	16V
C344	1-126-177-11	ELECT	100MF	20%	6.3V
C345	1-124-598-11	ELECT	22MF	20%	25V
C346	1-164-159-11	CERAMIC	0.1MF		50V
C347	1-164-159-11	CERAMIC	0.1MF		50V
C348	1-162-290-31	CERAMIC	470PF	10%	50V
C349	1-162-290-31	CERAMIC	470PF	10%	50V
C351	1-136-153-00	FILM	0.01MF	5%	50V
C352	1-162-306-11	CERAMIC	0.01MF	20%	16V
C354	1-126-096-11	ELECT	10MF	20%	35V
C355	1-126-177-11	ELECT	100MF	20%	6.3V
C356	1-126-096-11	ELECT	10MF	20%	35V
C357	1-164-159-11	CERAMIC	0.1MF		50V
C358	1-126-163-11	ELECT	4.7MF	20%	35V
C360	1-162-290-31	CERAMIC	470PF	10%	50V
C361	1-162-290-31	CERAMIC	470PF	10%	50V
C362	1-162-290-31	CERAMIC	470PF	10%	50V
C363	1-162-290-31	CERAMIC	470PF	10%	50V
C364	1-162-290-31	CERAMIC	470PF	10%	50V
C365	1-162-290-31	CERAMIC	470PF	10%	50V
C367	1-162-286-31	CERAMIC	220PF	10%	50V
C368	1-106-347-00	MYLAR	0.0015MF	5%	50V
C369	1-123-875-11	ELECT	10MF	20%	50V
C369A	1-164-159-11	CERAMIC	0.1MF		50V
C380	1-164-159-11	CERAMIC	0.1MF		50V
C381	1-126-177-11	ELECT	100MF	20%	6.3V
C382	1-164-159-11	CERAMIC	0.1MF		50V
C383	1-126-177-11	ELECT	100MF	20%	6.3V
C384	1-162-199-31	CERAMIC	10PF	5%	50V
C385	1-162-306-11	CERAMIC	0.01MF	20%	16V
C386	1-162-211-31	CERAMIC	33PF	5%	50V
C387	1-164-159-11	CERAMIC	0.1MF		50V
C388	1-162-211-31	CERAMIC	33PF	5%	50V
C389	1-126-177-11	ELECT	100MF	20%	6.3V
C390	1-124-229-00	ELECT	33MF	20%	10V
C391	1-164-159-11	CERAMIC	0.1MF		50V
C392	1-124-589-11	ELECT	47MF	20%	16V
C401	1-124-611-00	ELECT	1MF	20%	50V
C402	1-126-177-11	ELECT	100MF	20%	6.3V
C403	1-164-159-11	CERAMIC	0.1MF		50V
C404	1-162-205-31	CERAMIC	18PF	5%	50V
C405	1-164-159-11	CERAMIC	0.1MF		50V
C406	1-162-294-31	CERAMIC	0.001MF	10%	50V
C407	1-162-294-31	CERAMIC	0.001MF	10%	50V
C408	1-162-199-31	CERAMIC	10PF	5%	50V
C409	1-124-598-11	ELECT	22MF	20%	25V
C410	1-162-211-31	CERAMIC	33PF	5%	50V
C411	1-162-199-31	CERAMIC	10PF	5%	50V
C412	1-164-159-11	CERAMIC	0.1MF		50V
C413	1-126-177-11	ELECT	100MF	20%	6.3V
C414	1-164-159-11	CERAMIC	0.1MF		50V

Ref.No.	Part No.	Description			
C415	1-162-294-31	CERAMIC	0.001MF	10%	50V
C416	1-164-159-11	CERAMIC	0.1MF		50V
C417	1-164-159-11	CERAMIC	0.1MF		50V
C418	1-164-159-11	CERAMIC	0.1MF		50V
C419	1-164-159-11	CERAMIC	0.1MF		50V
C420	1-126-177-11	ELECT	100MF	20%	6.3V
C421	1-162-199-31	CERAMIC	10PF	5%	50V
C422	1-164-159-11	CERAMIC	0.1MF		50V
C423	1-164-159-11	CERAMIC	0.1MF		50V
C424	1-126-177-11	ELECT	100MF	20%	6.3V
C425	1-162-294-31	CERAMIC	0.001MF	10%	50V
C429	1-164-159-11	CERAMIC	0.1MF		50V
C430	1-126-177-11	ELECT	100MF	20%	6.3V
C432	1-126-177-11	ELECT	100MF	20%	6.3V
C501	1-164-159-11	CERAMIC	0.1MF		50V
C502	1-124-598-11	ELECT	22MF	20%	25V
C503	1-164-159-11	CERAMIC	0.1MF		50V
C504	1-124-598-11	ELECT	22MF	20%	25V
C505	1-164-159-11	CERAMIC	0.1MF		50V
C506	1-124-598-11	ELECT	22MF	20%	25V
C507	1-164-159-11	CERAMIC	0.1MF		50V
C508	1-164-159-11	CERAMIC	0.1MF		50V
C509	1-124-598-11	ELECT	22MF	20%	25V
C510	1-164-159-11	CERAMIC	0.1MF		50V
C512	1-164-159-11	CERAMIC	0.1MF		50V
C513	1-124-598-11	ELECT	22MF	20%	25V
C514	1-164-159-11	CERAMIC	0.1MF		50V
C515	1-110-340-11	MYLAR	270PF	5%	50V
C516	1-102-106-00	CERAMIC	100PF	10%	50V
C517	1-102-106-00	CERAMIC	100PF	10%	50V
C518	1-102-106-00	CERAMIC	100PF	10%	50V
C519	1-110-341-11	MYLAR	330PF	5%	50V
C520	1-110-341-11	MYLAR	330PF	5%	50V
C521	1-162-215-31	CERAMIC	47PF	5%	50V
C522	1-126-096-11	ELECT	10MF	20%	35V
C523	1-126-096-11	ELECT	10MF	20%	35V
C524	1-124-598-11	ELECT	22MF	20%	25V
C525	1-126-096-11	ELECT	10MF	20%	35V
C526	1-124-589-11	ELECT	47MF	20%	16V
C527	1-164-159-11	CERAMIC	0.1MF		50V
C528	1-164-159-11	CERAMIC	0.1MF		50V
C529	1-164-159-11	CERAMIC	0.1MF		50V
C530	1-124-598-11	ELECT	22MF	20%	25V
C531	1-110-341-11	MYLAR	330PF	5%	50V
C532	1-102-106-00	CERAMIC	100PF	10%	50V
C533	1-130-467-00	MYLAR	470PF	5%	50V
C534	1-102-106-00	CERAMIC	100PF	10%	50V
C535	1-130-467-00	MYLAR	470PF	5%	50V
C536	1-110-341-11	MYLAR	330PF	5%	50V
C539	1-126-096-11	ELECT	10MF	20%	35V
C540	1-126-096-11	ELECT	10MF	20%	35V
C541	1-126-096-11	ELECT	10MF	20%	35V
C542	1-126-096-11	ELECT	10MF	20%	35V
C543	1-126-096-11	ELECT	10MF	20%	35V
C547	1-164-159-11	CERAMIC	0.1MF		50V
C548	1-126-177-11	ELECT	100MF	20%	6.3V
C550	1-124-589-11	ELECT	47MF	20%	16V

Ref.No.	Part No.	Description			
C551	1-164-159-11	CERAMIC	0.1MF		50V
C552	1-124-598-11	ELECT	22MF	20%	25V
C553	1-164-159-11	CERAMIC	0.1MF		50V
C554	1-124-598-11	ELECT	22MF	20%	25V
C555	1-164-159-11	CERAMIC	0.1MF		50V
C556	1-124-598-11	ELECT	22MF	20%	25V
C557	1-164-159-11	CERAMIC	0.1MF		50V
C558	1-164-159-11	CERAMIC	0.1MF		50V
C559	1-124-598-11	ELECT	22MF	20%	25V
C560	1-164-159-11	CERAMIC	0.1MF		50V
C562	1-164-159-11	CERAMIC	0.1MF		50V
C563	1-124-598-11	ELECT	22MF	20%	25V
C564	1-164-159-11	CERAMIC	0.1MF		50V
C565	1-110-340-11	MYLAR	270PF	5%	50V
C566	1-102-106-00	CERAMIC	100PF	10%	50V
C567	1-102-106-00	CERAMIC	100PF	10%	50V
C568	1-102-106-00	CERAMIC	100PF	10%	50V
C569	1-110-341-11	MYLAR	330PF	5%	50V
C570	1-110-341-11	MYLAR	330PF	5%	50V
C571	1-162-215-31	CERAMIC	47PF	5%	50V
C572	1-126-096-11	ELECT	10MF	20%	35V
C573	1-126-096-11	ELECT	10MF	20%	35V
C574	1-124-598-11	ELECT	22MF	20%	25V
C575	1-126-096-11	ELECT	10MF	20%	35V
C576	1-124-589-11	ELECT	47MF	20%	16V
C577	1-164-159-11	CERAMIC	0.1MF		50V
C578	1-164-159-11	CERAMIC	0.1MF		50V
C579	1-164-159-11	CERAMIC	0.1MF		50V
C580	1-124-598-11	ELECT	22MF	20%	25V
C581	1-110-341-11	MYLAR	330PF	5%	50V
C582	1-102-106-00	CERAMIC	100PF	10%	50V
C583	1-130-467-00	MYLAR	470PF	5%	50V
C584	1-102-106-00	CERAMIC	100PF	10%	50V
C585	1-130-467-00	MYLAR	470PF	5%	50V
C586	1-110-341-11	MYLAR	330PF	5%	50V
C589	1-126-096-11	ELECT	10MF	20%	35V
C590	1-126-096-11	ELECT	10MF	20%	35V
C591	1-126-096-11	ELECT	10MF	20%	35V
C592	1-126-096-11	ELECT	10MF	20%	35V
C593	1-126-096-11	ELECT	10MF	20%	35V
C599	1-164-159-11	CERAMIC	0.1MF		50V
C601	1-162-282-31	CERAMIC	100PF	10%	50V
C602	1-124-927-11	ELECT	4.7MF	20%	50V
C603	1-124-963-11	ELECT	33MF	20%	16V
C604	1-130-480-00	MYLAR	0.0056MF	5%	50V
C605	1-106-347-00	MYLAR	0.0015MF	5%	50V
C606	1-124-927-11	ELECT	4.7MF	20%	50V
C607	1-126-233-11	ELECT	22MF	20%	50V
C608	1-123-875-11	ELECT	10MF	20%	50V
C610	1-123-875-11	ELECT	10MF	20%	50V
C611	1-123-875-11	ELECT	10MF	20%	50V
C612	1-123-875-11	ELECT	10MF	20%	50V
C613	1-162-294-31	CERAMIC	0.001MF	10%	50V
C614	1-123-875-11	ELECT	10MF	20%	50V
C615	1-123-875-11	ELECT	10MF	20%	50V
C616	1-162-294-31	CERAMIC	0.001MF	10%	50V
C617	1-123-875-11	ELECT	10MF	20%	50V

Ref.No.	Part No.	Description			
C618	1-123-875-11	ELECT	10MF	20%	50V
C619	1-123-875-11	ELECT	10MF	20%	50V
C620	1-162-294-31	CERAMIC	0.001MF	10%	50V
C621	1-164-159-11	CERAMIC	0.1MF		50V
C622	1-164-159-11	CERAMIC	0.1MF		50V
C625	1-123-875-11	ELECT	10MF	20%	50V
C626	1-123-875-11	ELECT	10MF	20%	50V
C627	1-123-875-11	ELECT	10MF	20%	50V
C628	1-124-927-11	ELECT	4.7MF	20%	50V
C629	1-124-910-11	ELECT	47MF	20%	50V
C630	1-123-875-11	ELECT	10MF	20%	50V
C631	1-123-875-11	ELECT	10MF	20%	50V
C637	1-123-875-11	ELECT	10MF	20%	50V
C638	1-123-875-11	ELECT	10MF	20%	50V
C639	1-123-875-11	ELECT	10MF	20%	50V
C640	1-123-875-11	ELECT	10MF	20%	50V
C641	1-123-875-11	ELECT	10MF	20%	50V
C642	1-124-927-11	ELECT	4.7MF	20%	50V
C643	1-124-927-11	ELECT	4.7MF	20%	50V
C644	1-124-927-11	ELECT	4.7MF	20%	50V
C645	1-124-477-11	ELECT	47MF	20%	16V
C646	1-124-477-11	ELECT	47MF	20%	16V
C651	1-162-282-31	CERAMIC	100PF	10%	50V
C652	1-124-927-11	ELECT	4.7MF	20%	50V
C653	1-124-963-11	ELECT	33MF	20%	16V
C654	1-130-480-00	MYLAR	0.0056MF	5%	50V
C655	1-106-347-00	MYLAR	0.0015MF	5%	50V
C656	1-124-927-11	ELECT	4.7MF	20%	50V
C657	1-126-233-11	ELECT	22MF	20%	50V
C658	1-123-875-11	ELECT	10MF	20%	50V
C660	1-123-875-11	ELECT	10MF	20%	50V
C661	1-123-875-11	ELECT	10MF	20%	50V
C662	1-123-875-11	ELECT	10MF	20%	50V
C667	1-123-875-11	ELECT	10MF	20%	50V
C668	1-123-875-11	ELECT	10MF	20%	50V
C670	1-164-159-11	CERAMIC	0.1MF		50V
C671	1-164-159-11	CERAMIC	0.1MF		50V
C675	1-162-210-31	CERAMIC	30PF	5%	50V
C676	1-162-210-31	CERAMIC	30PF	5%	50V
C677	1-164-159-11	CERAMIC	0.1MF		50V
C678	1-164-159-11	CERAMIC	0.1MF		50V
C679	1-125-486-11	CAP,DOUBLE LAYERS	0.22F		5.5V
C680	1-124-465-00	ELECT	0.47MF	20%	50V
C681	1-124-477-11	ELECT	47MF	20%	16V
C682	1-124-477-11	ELECT	47MF	20%	16V
C683	1-124-477-11	ELECT	47MF	20%	16V
C684	1-124-564-11	ELECT	4700MF	20%	25V
C685	1-124-557-11	ELECT	1000MF	20%	25V
C686	1-124-477-11	ELECT	47MF	20%	16V
C687	1-123-875-11	ELECT	10MF	20%	50V
C688	1-123-875-11	ELECT	10MF	20%	50V
C689	1-123-875-11	ELECT	10MF	20%	50V
C690	1-123-875-11	ELECT	10MF	20%	50V
C691	1-123-875-11	ELECT	10MF	20%	50V
C692	1-124-927-11	ELECT	4.7MF	20%	50V
C693	1-124-927-11	ELECT	4.7MF	20%	50V
C694	1-124-927-11	ELECT	4.7MF	20%	50V
C695	1-124-477-11	ELECT	47MF	20%	16V

Ref.No.	Part No.	Description			
C696	1-124-477-11	ELECT	47MF	20%	25V
C697	1-164-159-11	CERAMIC	0.1MF		50V
C698	1-164-159-11	CERAMIC	0.1MF		50V
C701	1-124-927-11	ELECT	4.7MF	20%	50V
C702	1-102-973-00	CERAMIC	100PF	5%	50V
C703	1-101-888-00	CERAMIC	68PF	5%	50V
C704	1-102-230-00	CERAMIC	4PF	0.25PF	500V
C705	1-102-936-00	CERAMIC	3PF	0.25PF	50V
C706	1-124-443-00	ELECT	100MF	20%	10V
C707	1-124-477-11	ELECT	47MF	20%	25V
C708	1-102-233-00	CERAMIC	33PF	10%	500V
C709	1-102-233-00	CERAMIC	33PF	10%	500V
C710	1-124-463-00	ELECT	0.1MF	20%	50V
C711	1-124-463-00	ELECT	0.1MF	20%	50V
C712	1-136-157-00	(US).....FILM	0.022MF	5%	50V
C712	1-136-161-00	(Canadian)...FILM	0.047MF	5%	50V
C713	1-136-161-00	(Canadian)...FILM	0.047MF	5%	50V
C714	1-124-463-00	ELECT	0.1MF	20%	50V
C715	1-124-472-11	ELECT	470MF	20%	6.3V
C716	1-124-931-11	ELECT	47MF	20%	100V
C717	1-123-875-11	ELECT	10MF	20%	50V
C721	1-106-391-12	MYLAR	0.1MF	10%	200V
C722	1-106-391-12	MYLAR	0.1MF	10%	200V
C723	1-125-573-11	ELECT(BLOCK)	12000MF	20%	71V
C724	1-125-573-11	ELECT(BLOCK)	12000MF	20%	71V
C725	1-124-618-11	ELECT	2200MF	20%	35V
C726	1-124-618-11	ELECT	2200MF	20%	35V
C727	1-164-159-11	CERAMIC	0.1MF		50V
C741	1-162-282-31	CERAMIC	100PF	10%	50V
C742	1-126-233-11	ELECT	22MF	20%	50V
C743	1-124-667-11	ELECT	10MF	20%	100V
C744	1-124-463-00	ELECT	0.1MF	20%	50V
C745	1-136-157-00	(US).....FILM	0.022MF	5%	50V
C745	1-136-161-00	(Canadian)...FILM	0.047MF	5%	50V
C746	1-136-161-00	(Canadian)...FILM	0.047MF	5%	50V
C747	1-164-159-11	CERAMIC	0.1MF		50V
C751	1-124-927-11	ELECT	4.7MF	20%	50V
C752	1-102-973-00	CERAMIC	100PF	5%	50V
C753	1-101-888-00	CERAMIC	68PF	5%	50V
C754	1-102-230-00	CERAMIC	4PF	0.25PF	500V
C755	1-102-936-00	CERAMIC	3PF	0.25PF	50V
C756	1-124-443-00	ELECT	100MF	20%	10V
C757	1-124-477-11	ELECT	47MF	20%	25V
C758	1-102-233-00	CERAMIC	33PF	10%	500V
C759	1-102-233-00	CERAMIC	33PF	10%	500V
C760	1-124-463-00	ELECT	0.1MF	20%	50V
C761	1-124-463-00	ELECT	0.1MF	20%	50V
C762	1-136-157-00	(US).....FILM	0.022MF	5%	50V
C762	1-136-161-00	(Canadian)...FILM	0.047MF	5%	50V
C763	1-136-161-00	(Canadian)...FILM	0.047MF	5%	50V
C766	1-124-931-11	ELECT	47MF	20%	100V
C767	1-123-875-11	ELECT	10MF	20%	50V
C791	1-162-282-31	CERAMIC	100PF	10%	50V
C792	1-126-233-11	ELECT	22MF	20%	50V
C794	1-124-463-00	ELECT	0.1MF	20%	50V
C795	1-136-157-00	(US).....FILM	0.022MF	5%	50V
C795	1-136-161-00	(Canadian)...FILM	0.047MF	5%	50V

Ref.No.	Part No.	Description			
C796	1-136-161-00	FILM	0.047MF	5%	50V
C804	1-124-557-11	ELECT	1000MF	20%	25V
C805	1-124-477-11	ELECT	47MF	20%	16V
C806	1-124-791-11	ELECT	1MF	20%	50V
C807	1-123-875-11	ELECT	10MF	20%	50V
C808	1-124-464-11	ELECT	0.22MF	20%	50V
C821	1-126-233-11	ELECT	22MF	20%	50V
C822	1-123-875-11	ELECT	10MF	20%	50V
C823	1-136-167-00	FILM	0.15MF	5%	50V
C824	1-136-167-00	FILM	0.15MF	5%	50V
C825	1-124-925-11	ELECT	2.2MF	20%	50V
C826	1-136-164-00	FILM	0.082MF	5%	50V
C827	1-136-164-00	FILM	0.082MF	5%	50V
C828	1-124-925-11	ELECT	2.2MF	20%	50V
C829	1-136-161-00	FILM	0.047MF	5%	50V
C830	1-136-161-00	FILM	0.047MF	5%	50V
C831	1-124-925-11	ELECT	2.2MF	20%	50V
C832	1-136-157-00	FILM	0.022MF	5%	50V
C833	1-136-157-00	FILM	0.022MF	5%	50V
C834	1-124-925-11	ELECT	2.2MF	20%	50V
C835	1-136-153-00	FILM	0.01MF	5%	50V
C836	1-136-153-00	FILM	0.01MF	5%	50V
C837	1-124-925-11	ELECT	2.2MF	20%	50V
C838	1-130-480-00	MYLAR	0.0056MF	5%	50V
C839	1-130-480-00	MYLAR	0.0056MF	5%	50V
C840	1-124-925-11	ELECT	2.2MF	20%	50V
C841	1-130-475-00	MYLAR	0.0022MF	5%	50V
C842	1-130-475-00	MYLAR	0.0022MF	5%	50V
C843	1-124-925-11	ELECT	2.2MF	20%	50V
C844	1-130-471-00	MYLAR	0.001MF	5%	50V
C845	1-130-471-00	MYLAR	0.001MF	5%	50V
C846	1-124-925-11	ELECT	2.2MF	20%	50V
C847	1-130-471-00	MYLAR	0.001MF	5%	50V
C848	1-130-471-00	MYLAR	0.001MF	5%	50V
C849	1-124-925-11	ELECT	2.2MF	20%	50V
C850	1-130-471-00	MYLAR	0.001MF	5%	50V
C851	1-130-471-00	MYLAR	0.001MF	5%	50V
C852	1-124-925-11	ELECT	2.2MF	20%	50V
C901 ⚠	1-161-744-00	CERAMIC	0.01MF		400V
CF001	1-567-393-11	FILTER, CERAMIC			
CF002	1-567-393-11	FILTER, CERAMIC			
CF003	1-567-250-11	OSCILLATOR, CERAMIC (18.95kHz)			
CF004	1-527-981-00	FILTER, CERAMIC			
CF201	1-567-797-11	VIBRATOR, CERAMIC (12MHz)			
CF601	1-567-797-11	VIBRATOR, CERAMIC (12MHz)			
CFT001	1-404-713-11	TRANSFORMER, IF			
CNJ001	*1-568-830-11	SOCKET, CONNECTOR 11P			
CNJ101	*1-569-588-11	CONNECTOR, DIN (S VIDEO 1,2)			
CNJ102	*1-569-588-11	CONNECTOR, DIN (S VIDEO,MONITOR)			
CNJ103	*1-568-826-11	SOCKET, CONNECTOR 7P			
CNJ141	*1-568-826-11	SOCKET, CONNECTOR 7P			
CNJ142	*1-568-826-11	SOCKET, CONNECTOR 7P			
CNJ143	*1-568-824-11	SOCKET, CONNECTOR 5P			
CNJ144	*1-568-826-11	SOCKET, CONNECTOR 7P			
CNJ145	*1-568-848-11	SOCKET, CONNECTOR 5P			
CNJ301	*1-568-867-11	SOCKET, CONNECTOR 25P			
CNJ302	*1-563-106-11	CONNECTOR (SOCKET) 10P			
CNJ401	*1-568-830-11	SOCKET, CONNECTOR 11P			

Ref.No.	Part No.	Description			
CNJ501	*1-568-824-11	SOCKET, CONNECTOR 5P			
CNJ601	*1-568-824-11	SOCKET, CONNECTOR 5P			
CNJ602	*1-568-826-11	SOCKET, CONNECTOR 7P			
CNJ603	*1-568-841-11	SOCKET, CONNECTOR 25P			
CNJ604	*1-568-830-11	SOCKET, CONNECTOR 11P			
CNJ605	*1-568-824-11	SOCKET, CONNECTOR 5P			
CNJ606	*1-568-828-11	SOCKET, CONNECTOR 9P			
CNJ607	*1-568-826-11	SOCKET, CONNECTOR 7P			
CNJ608	*1-568-830-11	SOCKET, CONNECTOR 11P			
CNJ701	*1-568-828-11	SOCKET, CONNECTOR 9P			
CNJ702	*1-568-826-11	SOCKET, CONNECTOR 7P			
CNJ703	*1-568-824-11	SOCKET, CONNECTOR 5P			
CNJ741	*1-568-826-11	SOCKET, CONNECTOR 7P			
CNJ901	1-540-060-11	OUTLET, AC (POLAR)			
CNP141	*1-564-505-11	PLUG, CONNECTOR 2P			
CNP143	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP144	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP231	*1-564-340-00	PIN, CONNECTOR 6P			
CNP401	*1-506-608-11	PIN, CONNECTOR 10P			
CNP501	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP601	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP602	*1-564-341-71	PIN, CONNECTOR 7P			
CNP603	*1-564-340-61	PIN, CONNECTOR 6P			
CNP604	*1-506-503-11	PIN, CONNECTOR 9P			
CNP605	*1-560-065-00	PIN, CONNECTOR 8P			
CNP606	*1-564-338-61	PIN, CONNECTOR 4P			
CNP607	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP701	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP702	*1-564-104-00	PIN, CONNECTOR 3P			
CNP703	*1-564-337-00	PIN, CONNECTOR 3P			
CNP704	*1-564-337-00	PIN, CONNECTOR 3P			
CNP705	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP706	*1-564-506-11	PLUG, CONNECTOR 3P			
CNP707	*1-564-242-00	PIN, CONNECTOR 5P			
CNP708	*1-564-509-11	PLUG, CONNECTOR 6P			
CNP709	*1-564-242-00	PIN, CONNECTOR 5P			
CNP801	*1-564-338-61	PIN, CONNECTOR 4P			
⚠CNP901	1-575-105-11	CORD, POWER			
CNP902	1-535-139-00	BASE POST 22MM (10MM PITCH) 2P			
CNP903	*1-564-321-00	PIN, CONNECTOR 2P			
CP201	1-233-221-11	COMPOSITION CIRCUIT BLOCK			
CP601⚠	1-102-394-11	CERAMIC	0.01MF		250V
CP701	1-102-394-11	CERAMIC	0.01MF		250V
CP801	1-102-394-11	CERAMIC	0.01MF		250V
D001	8-719-912-20	DIODE 1SS120			
D002	8-719-912-20	DIODE 1SS120			
D003	8-719-301-38	DIODE SEL2210S-C			
D004	8-719-912-20	DIODE 1SS120			
D141	8-719-303-00	DIODE SEL2510C			
D201	8-719-912-20	DIODE 1SS120			
D202	8-719-912-20	DIODE 1SS120			
D203	8-719-310-78	DIODE SEL1810W-C			
D204	8-719-310-78	DIODE SEL1810W-C			
D205	8-719-310-78	DIODE SEL1810W-C			
D206	8-719-310-78	DIODE SEL1810W-C			
D207	8-719-304-14	DIODE SEL2510W			
D208	8-719-304-14	DIODE SEL2510W			

Note:
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Replace only with part number specified.

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Ref.No.	Part No.	Description
D209	8-719-304-14	DIODE SEL2510W
D210	8-719-304-14	DIODE SEL2510W
D211	8-719-304-14	DIODE SEL2510W
D212	8-719-304-14	DIODE SEL2510W
D213	8-719-310-60	DIODE SEL1510C-C
D214	8-719-311-37	DIODE SEL2810W-C
D215	8-719-311-37	DIODE SEL2810W-C
D221	8-719-912-20	DIODE 1SS120
D231	8-719-310-78	DIODE SEL1810W-C
D232	8-719-310-78	DIODE SEL1810W-C
D301	8-719-912-20	DIODE 1SS120
D302	8-719-912-20	DIODE 1SS120
D303	8-719-903-27	DIODE 1SS168
D304	8-719-912-20	DIODE 1SS120
D305	8-719-912-20	DIODE 1SS120
D306	8-719-912-20	DIODE 1SS120
D351	8-719-912-20	DIODE 1SS120
D352	8-719-912-20	DIODE 1SS120
D401	8-719-912-20	DIODE 1SS120
D402	8-719-912-20	DIODE 1SS120
D403	8-719-200-82	DIODE 11ES2
D404	8-719-918-45	DIODE KV1310
D405	8-719-903-27	DIODE 1SS168
D601	8-719-912-20	DIODE 1SS120
D603	8-719-912-20	DIODE 1SS120
D604	8-719-912-20	DIODE 1SS120
D605	8-719-912-20	DIODE 1SS120
D606	8-719-912-20	DIODE 1SS120
D607	8-719-912-20	DIODE 1SS120
D610	8-719-002-67	DIODE UZL-33H
D614	8-719-912-20	DIODE 1SS120
D615	8-719-912-20	DIODE 1SS120
D616	8-719-912-20	DIODE 1SS120
D617	8-719-511-40	DIODE S1VB40
D618	8-719-014-82	DIODE UZP-6.8B
D619	8-719-912-20	DIODE 1SS120
D620	8-719-912-20	DIODE 1SS120
D621	8-719-912-20	DIODE 1SS120
D622	8-719-912-20	DIODE 1SS120
D623	8-719-912-20	DIODE 1SS120
D701	8-719-912-20	DIODE 1SS120
D702	8-719-912-20	DIODE 1SS120
D703	8-719-912-20	DIODE 1SS120
D704	8-719-912-20	DIODE 1SS120
D705	8-719-912-20	DIODE 1SS120
D706	8-719-912-20	DIODE 1SS120
D707	8-719-912-20	DIODE 1SS120
D708	8-719-912-20	DIODE 1SS120
D709	8-719-912-20	DIODE 1SS120
D710	8-719-912-20	DIODE 1SS120
D711	8-719-912-20	DIODE 1SS120
D712	8-719-912-20	DIODE 1SS120
D713	8-719-912-20	DIODE 1SS120
D714	8-719-912-20	DIODE 1SS120
D715	8-719-912-20	DIODE 1SS120
D716	8-719-912-20	DIODE 1SS120
D718	8-719-912-20	DIODE 1SS120
D719	8-719-912-20	DIODE 1SS120

Ref.No.	Part No.	Description
D720	8-719-912-20	DIODE 1SS120
D721	8-719-302-38	DIODE RBV-602-01
D722	8-719-312-09	DIODE RBA-402
D723	8-719-912-20	DIODE 1SS120
D741	8-719-912-20	DIODE 1SS120
D742	8-719-912-20	DIODE 1SS120
D743	8-719-912-20	DIODE 1SS120
D744	8-719-912-20	DIODE 1SS120
D745	8-719-912-20	DIODE 1SS120
D751	8-719-912-20	DIODE 1SS120
D752	8-719-912-20	DIODE 1SS120
D753	8-719-912-20	DIODE 1SS120
D754	8-719-912-20	DIODE 1SS120
D755	8-719-912-20	DIODE 1SS120
D756	8-719-912-20	DIODE 1SS120
D757	8-719-912-20	DIODE 1SS120
D758	8-719-912-20	DIODE 1SS120
D759	8-719-912-20	DIODE 1SS120
D760	8-719-912-20	DIODE 1SS120
D761	8-719-912-20	DIODE 1SS120
D762	8-719-912-20	DIODE 1SS120
D763	8-719-912-20	DIODE 1SS120
D764	8-719-912-20	DIODE 1SS120
D765	8-719-912-20	DIODE 1SS120
D766	8-719-912-20	DIODE 1SS120
D791	8-719-912-20	DIODE 1SS120
D802	8-719-912-20	DIODE 1SS120
D803	8-719-511-40	DIODE S1VB40
D807	8-719-000-06	DIODE MC921
D808	8-719-933-41	DIODE HZS6C3L
D809	8-719-933-41	DIODE HZS6C3L
D810	8-719-914-11	DIODE HZ4ALL
D821	8-719-912-20	DIODE 1SS120
D822	8-719-912-20	DIODE 1SS120
D823	8-719-912-20	DIODE 1SS120
D824	8-719-912-20	DIODE 1SS120
D825	8-719-912-20	DIODE 1SS120
D826	8-719-912-20	DIODE 1SS120
D827	8-719-912-20	DIODE 1SS120
D828	8-719-912-20	DIODE 1SS120
D829	8-719-912-20	DIODE 1SS120
D830	8-719-912-20	DIODE 1SS120
D831	8-719-912-20	DIODE 1SS120
D832	8-719-912-20	DIODE 1SS120
D833	8-719-912-20	DIODE 1SS120
F601 ⚠	1-532-598-00	FUSE, GLASS TUBE (125V/4A)
F602 ⚠	1-532-598-00	FUSE, GLASS TUBE (125V/4A)
F603 ⚠	1-532-598-00	FUSE, GLASS TUBE (125V/4A)
F604 ⚠	1-532-598-00	FUSE, GLASS TUBE (125V/4A)
F902 ⚠	1-532-749-11	FUSE, GLASS TUBE (125V/8A)
FE001	1-463-862-21	FRONT END, FM
FE002	1-236-461-11	ENCAPSULATED COMPONENT
FL201	1-519-605-11	INDICATOR TUBE, FLUORESCENT

Note:
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Replace only with part number specified.

Note:
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Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
IC001	8-759-804-55	IC LA1266
IC002	8-759-801-80	IC LA3401
IC003	8-759-820-91	IC LC7218
IC101	8-759-991-77	IC BA7625
IC102	8-759-991-78	IC BA7626
IC103	8-759-991-77	IC BA7625
IC141	8-759-112-93	IC UPC4570HA
IC201	8-759-990-38	IC MSC1162GS
IC202	8-759-990-38	IC MSC1162GS
IC203	8-759-149-94	IC UPD78214GC
IC204	8-749-920-59	IC A1QH3020S
IC205	8-759-500-31	IC X24C01P
IC231	8-759-820-62	IC LB1639
IC301	8-759-999-09	IC CS5326-KP
IC302	8-759-990-82	IC TL082CP
IC303	8-759-924-12	IC LM7805CT
IC304	8-759-982-21	IC RC78L05A
IC305	8-759-982-44	IC RC79L05A
IC306	8-759-634-51	IC M5218AP
IC307	8-759-148-89	IC UPD6376CX
IC308	8-759-822-82	IC CXD2556M
IC309	8-759-973-98	IC YM3623B
IC310	8-759-916-12	IC SN74HC00N
IC311	8-759-921-08	IC SN74HC02N
IC312	8-759-917-18	IC SN74HCU04N
IC313	8-752-331-87	IC CXD1160AP
IC314	8-752-331-87	IC CXD1160AP
IC315	8-759-924-12	IC LM7805CT
IC316	8-759-978-11	IC MSM3764A-12RS
IC317	8-759-917-18	IC SN74HCU04N
IC318	8-741-646-01	IC SBX1646-01
IC319	8-759-924-12	IC LM7805CT
IC400	8-759-982-21	IC RC78L05A
IC401	8-759-250-81	IC TC5081AP
IC402	8-759-917-11	IC SN74HC393N
IC403	8-759-917-18	IC SN74HCU04N
IC404	8-759-979-94	IC CXD1355Q
IC405	8-759-987-63	IC MSM514256-10RS
IC406	8-759-979-94	IC CXD1355Q
IC407	8-759-987-63	IC MSM514256-10RS
IC408	8-759-917-18	IC SN74HCU04N
IC409	8-759-982-23	IC RC78L08A
IC501	8-752-335-52	IC CXD2552Q-2
IC502	8-759-924-12	IC LM7805CT
IC503	8-759-106-41	IC UPC4570C
IC504	8-759-106-41	IC UPC4570C
IC505	8-759-106-41	IC UPC4570C
IC506	8-759-106-41	IC UPC4570C
IC551	8-752-335-52	IC CXD2552Q-2
IC553	8-759-106-41	IC UPC4570C
IC554	8-759-106-41	IC UPC4570C
IC555	8-759-106-41	IC UPC4570C
IC556	8-759-106-41	IC UPC4570C
IC601	8-759-106-41	IC UPC4570C
IC602	8-759-106-41	IC UPC4570C
IC603	8-759-106-41	IC UPC4570C
IC604	8-759-106-41	IC UPC4570C

Ref.No.	Part No.	Description
IC605	8-759-805-14	IC LC7822
IC606	8-759-805-14	IC LC7822
IC607	8-759-106-41	IC UPC4570C
IC608	8-759-805-13	IC LC7821
IC609	8-759-112-93	IC UPC4570HA-1
IC610	8-759-112-93	IC UPC4570HA-1
IC611	8-759-820-11	IC LC7535
IC612	8-759-801-01	IC LC4966
IC613	8-759-149-95	IC UPD78134GF
IC614	8-759-711-35	IC NJM4580D
IC615	8-759-501-47	IC LM78M12
IC616	8-759-501-47	IC LM78M12
IC617	8-759-604-45	IC M5F79M12L
IC618	8-759-924-12	IC LM7805CT
IC619	8-759-106-41	IC UPC4570C
IC620	8-759-106-41	IC UPC4570C
IC701	8-749-921-85	IC STK-3122-3
IC703	8-759-502-30	IC SI-1875IN
IC704	8-759-502-30	IC SI-1875IN
IC821	8-759-601-02	IC M5218P
IC822	8-759-601-02	IC M5218P
IC823	8-759-601-02	IC M5218P
IC824	8-759-601-02	IC M5218P
IC825	8-759-601-02	IC M5218P
IC826	8-759-601-02	IC M5218P
IC827	8-759-208-10	IC TC4053BPHB
IC828	8-759-208-10	IC TC4053BPHB
J101	1-565-319-11	JACK, PIN 2P (VIDEO 1,VIDEO 2 LD)
J102	1-565-319-11	JACK, PIN 2P (VIDEO 1,MONITOR)
J138	1-563-136-31	JACK, PIN 3P (VIDEO 3/INPUT)
J301	1-568-750-11	JACK, PIN (1P SHIELD TYPE)(COAXIAL)
J601	1-565-320-11	JACK, PIN 6P (CD IN/PHONO IN/DAT OUT)
J602	1-565-320-11	JACK, PIN 6P (TAPE 1 OUT,DAT IN/OUT)
J603	1-565-320-11	JACK, PIN 6P (VIDEO 1 AUDIO IN/OUT,VIDEO 2 LD AUDIO IN)
J604	1-565-258-11	JACK, PIN 4P (TAPE 2 IN)
J605	1-566-819-21	JACK 1P (DRLC IN)
J701	1-565-258-11	JACK, PIN 4P (PRE OUT,CENTER OUT)
J703	1-507-796-71	JACK (HEADPHONES)
L001	1-410-509-11	INDUCTOR 10UH
L002	1-410-171-11	INDUCTOR 1MMH
L003	1-410-509-11	INDUCTOR 10UH
L301	1-410-324-11	INDUCTOR 4.7UH
L302	1-410-397-21	FERRITE BEAD INDUCTOR
L303	1-410-324-11	INDUCTOR 4.7UH
L304	1-410-324-11	INDUCTOR 4.7UH
L305	1-410-324-11	INDUCTOR 4.7UH
L306	1-410-324-11	INDUCTOR 4.7UH
L307	1-410-324-11	INDUCTOR 4.7UH
L308	1-410-324-11	INDUCTOR 4.7UH
L309	1-410-324-11	INDUCTOR 4.7UH
L310	1-410-324-11	INDUCTOR 4.7UH
L312	1-410-324-11	INDUCTOR 4.7UH
L313	1-410-499-41	INDUCTOR 1.5UH
L401	1-426-150-00	COIL, RF
L402	1-426-150-00	COIL, RF
L403	1-410-324-11	INDUCTOR 4.7UH

Ref.No.	Part No.	Description
L405	1-410-324-11	INDUCTOR 4.7UH
L406	1-410-324-11	INDUCTOR 4.7UH
L408	1-410-324-11	INDUCTOR 4.7UH
L409	1-410-324-11	INDUCTOR 4.7UH
L415	1-410-324-11	INDUCTOR 4.7UH
L501	1-410-324-11	INDUCTOR 4.7UH
L551	1-410-324-11	INDUCTOR 4.7UH
L701	*1-420-872-00	COIL, AIR CORE
L702	*1-420-872-00	COIL, AIR CORE
L751	*1-420-872-00	COIL, AIR CORE
L752	*1-420-872-00	COIL, AIR CORE
LPF001	1-235-164-00	FILTER, LOW PASS
LPF002	1-235-164-00	FILTER, LOW PASS
Q001	8-729-620-19	TRANSISTOR 2SC2724-CD
Q002	8-729-620-19	TRANSISTOR 2SC2724-CD
Q003	8-729-900-61	TRANSISTOR DTA114ES
Q004	8-729-620-05	TRANSISTOR 2SC2603-EF
Q005	8-729-900-80	TRANSISTOR DTC114ES
Q006	8-729-202-67	TRANSISTOR 2SK246-GR3
Q007	8-729-201-84	TRANSISTOR 2SC3112-B
Q101	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q102	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q103	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q105	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q106	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q108	8-729-900-80	TRANSISTOR DTC114ES
Q109	8-729-900-80	TRANSISTOR DTC114ES
Q201	8-729-900-61	TRANSISTOR DTA114ES
Q202	8-729-900-80	TRANSISTOR DTC114ES
Q231	8-729-620-05	TRANSISTOR 2SC2603-EF
Q232	8-729-620-05	TRANSISTOR 2SC2603-EF
Q302	8-729-900-80	TRANSISTOR DTC114ES
Q403	8-729-200-56	TRANSISTOR 2SK241-GR
Q404	8-729-200-56	TRANSISTOR 2SK241-GR
Q405	8-729-900-61	TRANSISTOR DTA114ES
Q501	8-729-107-84	TRANSISTOR 2SC3623A-L
Q502	8-729-107-84	TRANSISTOR 2SC3623A-L
Q503	8-729-107-84	TRANSISTOR 2SC3623A-L
Q504	8-729-107-84	TRANSISTOR 2SC3623A-L
Q506	8-729-107-84	TRANSISTOR 2SC3623A-L
Q507	8-729-900-61	TRANSISTOR DTA114ES
Q508	8-729-900-61	TRANSISTOR DTA114ES
Q509	8-729-900-61	TRANSISTOR DTA114ES
Q510	8-729-900-61	TRANSISTOR DTA114ES
Q511	8-729-107-84	TRANSISTOR 2SC3623A-L
Q512	8-729-107-84	TRANSISTOR 2SC3623A-L
Q551	8-729-107-84	TRANSISTOR 2SC3623A-L
Q552	8-729-107-84	TRANSISTOR 2SC3623A-L
Q553	8-729-107-84	TRANSISTOR 2SC3623A-L
Q554	8-729-107-84	TRANSISTOR 2SC3623A-L
Q556	8-729-107-84	TRANSISTOR 2SC3623A-L
Q561	8-729-107-84	TRANSISTOR 2SC3623A-L
Q562	8-729-107-84	TRANSISTOR 2SC3623A-L
Q601	8-729-620-05	TRANSISTOR 2SC2603-EF
Q602	8-729-107-84	TRANSISTOR 2SC3623A-L
Q603	8-729-900-61	TRANSISTOR DTA114ES
Q604	8-729-900-80	TRANSISTOR DTC114ES
Q605	8-729-900-61	TRANSISTOR DTA114ES
Q606	8-729-900-80	TRANSISTOR DTC114ES
Q607	8-729-900-61	TRANSISTOR DTA114ES
Q608	8-729-107-84	TRANSISTOR 2SC3623A-L
Q609	8-729-107-84	TRANSISTOR 2SC3623A-L
Q610	8-729-107-84	TRANSISTOR 2SC3623A-L
Q612	8-729-209-15	TRANSISTOR 2SD2012
Q613	8-729-900-61	TRANSISTOR DTA114ES
Q615	8-729-900-80	TRANSISTOR DTC114ES
Q616	8-729-900-61	TRANSISTOR DTA114ES
Q617	8-729-900-61	TRANSISTOR DTA114ES
Q618	8-729-900-80	TRANSISTOR DTC114ES
Q619	8-729-900-61	TRANSISTOR DTA114ES
Q620	8-729-900-80	TRANSISTOR DTC114ES
Q621	8-729-620-05	TRANSISTOR 2SC2603-EF
Q624	8-729-107-84	TRANSISTOR 2SC3623A-L
Q625	8-729-107-84	TRANSISTOR 2SC3623A-L
Q626	8-729-107-84	TRANSISTOR 2SC3623A-L
Q627	8-729-107-84	TRANSISTOR 2SC3623A-L
Q628	8-729-900-61	TRANSISTOR DTA114ES
Q629	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q652	8-729-107-84	TRANSISTOR 2SC3623A-L
Q702	8-729-209-15	TRANSISTOR 2SD2012
Q703	8-729-141-05	TRANSISTOR 2SC2682-QPE
Q704	8-729-141-46	TRANSISTOR 2SC4431-LK
Q705	8-729-321-13	TRANSISTOR 2SC4388-O
Q706	8-729-321-13	TRANSISTOR 2SC4388-O
Q707	8-729-141-06	TRANSISTOR 2SA1142-QPE
Q708	8-729-141-37	TRANSISTOR 2SA1684-LK
Q709	8-729-321-18	TRANSISTOR 2SA1673-OY
Q710	8-729-321-18	TRANSISTOR 2SA1673-OY
Q711	8-729-108-14	TRANSISTOR 2SA988-F
Q712	8-729-108-14	TRANSISTOR 2SA988-F
Q713	8-729-140-84	TRANSISTOR 2SA1841-PAFAEA
Q714	8-729-620-05	TRANSISTOR 2SC2603-EF
Q715	8-729-108-14	TRANSISTOR 2SA988-F
Q716	8-729-620-05	TRANSISTOR 2SC2603-EF
Q741	8-729-108-14	TRANSISTOR 2SA988-F
Q742	8-729-620-05	TRANSISTOR 2SC2603-EF
Q743	8-729-620-05	TRANSISTOR 2SC2603-EF
Q752	8-729-209-15	TRANSISTOR 2SD2012
Q753	8-729-141-05	TRANSISTOR 2SC2682-QPE
Q754	8-729-141-46	TRANSISTOR 2SC4431-LK
Q755	8-729-321-13	TRANSISTOR 2SC4388-O
Q756	8-729-321-13	TRANSISTOR 2SC4388-O
Q757	8-729-141-06	TRANSISTOR 2SA1142-QPE
Q758	8-729-141-37	TRANSISTOR 2SA1684-LK
Q759	8-729-321-18	TRANSISTOR 2SA1673-OY
Q760	8-729-321-18	TRANSISTOR 2SA1673-OY
Q767	8-729-108-14	TRANSISTOR 2SA988-F
Q768	8-729-108-14	TRANSISTOR 2SA988-F
Q791	8-729-108-14	TRANSISTOR 2SA988-F
Q801	8-729-620-05	TRANSISTOR 2SC2603-EF
Q802	8-729-209-15	TRANSISTOR 2SD2012

Ref.No.	Part No.	Description			
Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q804	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q805	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q806	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q822	8-729-107-84	TRANSISTOR 2SC3623A-L			
Q823	8-729-107-84	TRANSISTOR 2SC3623A-L			
R001	1-249-411-11	CARBON	330	5%	1/4W
R002	1-249-401-11	CARBON	47	5%	1/4W
R003	1-249-411-11	CARBON	330	5%	1/4W
R004	1-249-415-11	CARBON	680	5%	1/4W
R005	1-249-431-11	CARBON	15K	5%	1/4W
R006	1-249-411-11	CARBON	330	5%	1/4W
R007	1-249-434-11	CARBON	27K	5%	1/4W
R008	1-249-397-11	CARBON	22	5%	1/4W
R016	1-249-431-11	CARBON	15K	5%	1/4W
R017	1-249-423-11	CARBON	3.3K	5%	1/4W
R018	1-249-406-11	CARBON	120	5%	1/4W
R021	1-249-429-11	CARBON	10K	5%	1/4W
R022	1-249-437-11	CARBON	47K	5%	1/4W
R023	1-249-402-11	CARBON	56	5%	1/4W
R024	1-249-430-11	CARBON	12K	5%	1/4W
R025	1-249-421-11	CARBON	2.2K	5%	1/4W
R026	1-249-429-11	CARBON	10K	5%	1/4W
R027	1-249-429-11	CARBON	10K	5%	1/4W
R028	1-249-404-00	CARBON	82	5%	1/4W
R029	1-249-423-11	CARBON	3.3K	5%	1/4W
R032	1-249-438-11	CARBON	56K	5%	1/4W
R033	1-247-881-00	CARBON	120K	5%	1/4W
R034	1-247-883-00	CARBON	150K	5%	1/4W
R035	1-247-881-00	CARBON	120K	5%	1/4W
R036	1-247-883-00	CARBON	150K	5%	1/4W
R037	1-249-423-11	CARBON	3.3K	5%	1/4W
R038	1-249-423-11	CARBON	3.3K	5%	1/4W
R041	1-249-425-11	CARBON	4.7K	5%	1/4W
R042	1-249-425-11	CARBON	4.7K	5%	1/4W
R043	1-249-406-11	CARBON	120	5%	1/4W
R044	1-249-423-11	CARBON	3.3K	5%	1/4W
R045	1-249-414-11	CARBON	560	5%	1/4W
R046	1-249-429-11	CARBON	10K	5%	1/4W
R047	1-249-433-11	CARBON	22K	5%	1/4W
R049	1-249-438-11	CARBON	56K	5%	1/4W
R051	1-249-417-11	CARBON	1K	5%	1/4W
R052	1-249-417-11	CARBON	1K	5%	1/4W
R053	1-249-417-11	CARBON	1K	5%	1/4W
R055	1-249-417-11	CARBON	1K	5%	1/4W
R056	1-249-405-11	CARBON	100	5%	1/4W
R057	1-249-425-11	CARBON	4.7K	5%	1/4W
R058	1-249-425-11	CARBON	4.7K	5%	1/4W
R059	1-249-421-11	CARBON	2.2K	5%	1/4W
R060	1-249-414-11	CARBON	560	5%	1/4W
R061	1-249-417-11	CARBON	1K	5%	1/4W
R062	1-249-410-11	CARBON	270	5%	1/4W
R063	1-249-425-11	CARBON	4.7K	5%	1/4W
R064	1-249-423-11	CARBON	3.3K	5%	1/4W
R065	1-249-406-11	CARBON	120	5%	1/4W
R066	1-249-417-11	CARBON	1K	5%	1/4W
R067	1-249-429-11	CARBON	10K	5%	1/4W

Ref.No.	Part No.	Description			
R068	1-249-429-11	CARBON	10K	5%	1/4W
R069	1-249-429-11	CARBON	10K	5%	1/4W
R071	1-249-429-11	CARBON	10K	5%	1/4W
R101	1-247-804-11	CARBON	75	5%	1/4W
R102	1-247-804-11	CARBON	75	5%	1/4W
R103	1-247-804-11	CARBON	75	5%	1/4W
R104	1-247-804-11	CARBON	75	5%	1/4W
R105	1-247-804-11	CARBON	75	5%	1/4W
R106	1-247-804-11	CARBON	75	5%	1/4W
R107	1-249-429-11	CARBON	10K	5%	1/4W
R108	1-249-429-11	CARBON	10K	5%	1/4W
R109	1-249-405-11	CARBON	100	5%	1/4W
R110	1-249-405-11	CARBON	100	5%	1/4W
R111	1-249-413-11	CARBON	470	5%	1/4W
R112	1-249-405-11	CARBON	100	5%	1/4W
R113	1-247-804-11	CARBON	75	5%	1/4W
R114	1-247-804-11	CARBON	75	5%	1/4W
R115	1-249-429-11	CARBON	10K	5%	1/4W
R116	1-249-429-11	CARBON	10K	5%	1/4W
R117	1-249-405-11	CARBON	100	5%	1/4W
R118	1-249-405-11	CARBON	100	5%	1/4W
R119	1-249-413-11	CARBON	470	5%	1/4W
R120	1-249-405-11	CARBON	100	5%	1/4W
R121	1-247-804-11	CARBON	75	5%	1/4W
R122	1-247-804-11	CARBON	75	5%	1/4W
R123	1-247-804-11	CARBON	75	5%	1/4W
R125	1-249-429-11	CARBON	10K	5%	1/4W
R126	1-249-405-11	CARBON	100	5%	1/4W
R127	1-249-405-11	CARBON	100	5%	1/4W
R128	1-249-405-11	CARBON	100	5%	1/4W
R129	1-249-405-11	CARBON	100	5%	1/4W
R132	1-247-804-11	CARBON	75	5%	1/4W
R134	1-249-429-11	CARBON	10K	5%	1/4W
R136	1-249-433-11	CARBON	22K	5%	1/4W
R137	1-249-433-11	CARBON	22K	5%	1/4W
R139	1-247-804-11	CARBON	75	5%	1/4W
R141	1-249-441-11	CARBON	100K	5%	1/4W
R142	1-249-418-11	CARBON	1.2K	5%	1/4W
R143	1-249-433-11	CARBON	22K	5%	1/4W
R191	1-249-441-11	CARBON	100K	5%	1/4W
R192	1-249-418-11	CARBON	1.2K	5%	1/4W
R193	1-249-433-11	CARBON	22K	5%	1/4W
R201	1-249-433-11	CARBON	22K	5%	1/4W
R202	1-249-429-11	CARBON	10K	5%	1/4W
R203	1-249-437-11	CARBON	47K	5%	1/4W
R204	1-249-433-11	CARBON	22K	5%	1/4W
R205	1-249-411-11	CARBON	330	5%	1/4W
R206	1-249-437-11	CARBON	47K	5%	1/4W
R207	1-249-437-11	CARBON	47K	5%	1/4W
R208	1-249-437-11	CARBON	47K	5%	1/4W
R209	1-249-437-11	CARBON	47K	5%	1/4W
R210	1-249-403-11	CARBON	68	5%	1/4W
R211	1-249-437-11	CARBON	47K	5%	1/4W
R212	1-249-437-11	CARBON	47K	5%	1/4W
R213	1-249-437-11	CARBON	47K	5%	1/4W
R214	1-249-413-11	CARBON	470	5%	1/4W
R215	1-249-437-11	CARBON	47K	5%	1/4W

Ref.No.	Part No.	Description				
R216	1-249-404-00	CARBON	82	5%	1/4W	
R217	1-249-437-11	CARBON	47K	5%	1/4W	
R218	1-249-405-11	CARBON	100	5%	1/4W	
R219	1-249-433-11	CARBON	22K	5%	1/4W	
R220	1-249-433-11	CARBON	22K	5%	1/4W	
R221	1-249-433-11	CARBON	22K	5%	1/4W	
R222	1-249-433-11	CARBON	22K	5%	1/4W	
R223	1-249-433-11	CARBON	22K	5%	1/4W	
R224	1-249-433-11	CARBON	22K	5%	1/4W	
R225	1-249-433-11	CARBON	22K	5%	1/4W	
R226	1-249-433-11	CARBON	22K	5%	1/4W	
R227	1-249-433-11	CARBON	22K	5%	1/4W	
R231	1-249-433-11	CARBON	22K	5%	1/4W	
R232	1-249-433-11	CARBON	22K	5%	1/4W	
R233	1-249-409-11	CARBON	220	5%	1/4W	
R234	1-249-409-11	CARBON	220	5%	1/4W	
R235	1-249-394-11	CARBON	12	5%	1/4W	
R236	1-249-426-11	CARBON	5.6K	5%	1/4W	
R237	1-249-426-11	CARBON	5.6K	5%	1/4W	
R251	1-249-441-11	CARBON	100K	5%	1/4W	
R252	1-249-441-11	CARBON	100K	5%	1/4W	
R253 ⚠	1-249-447-11	CARBON	1	5%	1/4W	F
R254 ⚠	1-249-447-11	CARBON	1	5%	1/4W	F
R301	1-249-441-11	CARBON	100K	5%	1/4W	
R303	1-249-435-11	CARBON	33K	5%	1/4W	
R304	1-249-435-11	CARBON	33K	5%	1/4W	
R305	1-249-405-11	CARBON	100	5%	1/4W	
R306	1-249-401-11	CARBON	47	5%	1/4W	
R307	1-249-393-11	CARBON	10	5%	1/4W	
R309	1-247-895-00	CARBON	470K	5%	1/4W	
R311	1-249-405-11	CARBON	100	5%	1/4W	
R312	1-249-405-11	CARBON	100	5%	1/4W	
R313	1-249-405-11	CARBON	100	5%	1/4W	
R318	1-249-423-11	CARBON	3.3K	5%	1/4W	
R319	1-249-423-11	CARBON	3.3K	5%	1/4W	
R320	1-249-423-11	CARBON	3.3K	5%	1/4W	
R321	1-249-420-11	CARBON	1.8K	5%	1/4W	
R322	1-249-424-11	CARBON	3.9K	5%	1/4W	
R324	1-249-441-11	CARBON	100K	5%	1/4W	
R325	1-247-903-00	CARBON	1M	5%	1/4W	
R326	1-249-407-11	CARBON	150	5%	1/4W	
R327	1-249-405-11	CARBON	100	5%	1/4W	
R328	1-247-903-00	CARBON	1M	5%	1/4W	
R329	1-249-429-11	CARBON	10K	5%	1/4W	
R330	1-249-441-11	CARBON	100K	5%	1/4W	
R331	1-247-903-00	CARBON	1M	5%	1/4W	
R332	1-247-804-11	CARBON	75	5%	1/4W	
R333	1-249-405-11	CARBON	100	5%	1/4W	
R334	1-249-433-11	CARBON	22K	5%	1/4W	
R335	1-249-441-11	CARBON	100K	5%	1/4W	
R336	1-249-433-11	CARBON	22K	5%	1/4W	
R337	1-249-414-11	CARBON	560	5%	1/4W	
R338	1-249-414-11	CARBON	560	5%	1/4W	
R339	1-249-414-11	CARBON	560	5%	1/4W	
R340	1-249-414-11	CARBON	560	5%	1/4W	
R341	1-249-414-11	CARBON	560	5%	1/4W	
R342	1-249-414-11	CARBON	560	5%	1/4W	

Ref.No.	Part No.	Description			
R343	1-249-414-11	CARBON	560	5%	1/4W
R344	1-249-414-11	CARBON	560	5%	1/4W
R345	1-249-417-11	CARBON	1K	5%	1/4W
R346	1-249-417-11	CARBON	1K	5%	1/4W
R347	1-249-417-11	CARBON	1K	5%	1/4W
R348	1-249-417-11	CARBON	1K	5%	1/4W
R349	1-249-417-11	CARBON	1K	5%	1/4W
R350	1-249-417-11	CARBON	1K	5%	1/4W
R351	1-249-441-11	CARBON	100K	5%	1/4W
R352	1-249-417-11	CARBON	1K	5%	1/4W
R353	1-249-435-11	CARBON	33K	5%	1/4W
R354	1-249-435-11	CARBON	33K	5%	1/4W
R355	1-249-405-11	CARBON	100	5%	1/4W
R356	1-249-401-11	CARBON	47	5%	1/4W
R368	1-249-423-11	CARBON	3.3K	5%	1/4W
R369	1-249-423-11	CARBON	3.3K	5%	1/4W
R370	1-249-423-11	CARBON	3.3K	5%	1/4W
R371	1-249-420-11	CARBON	1.8K	5%	1/4W
R372	1-249-424-11	CARBON	3.9K	5%	1/4W
R374	1-249-441-11	CARBON	100K	5%	1/4W
R380	1-247-903-00	CARBON	1M	5%	1/4W
R381	1-249-401-11	CARBON	47	5%	1/4W
R401	1-249-435-11	CARBON	33K	5%	1/4W
R402	1-249-437-11	CARBON	47K	5%	1/4W
R403	1-249-423-11	CARBON	3.3K	5%	1/4W
R404	1-249-423-11	CARBON	3.3K	5%	1/4W
R405	1-249-413-11	CARBON	470	5%	1/4W
R406	1-249-417-11	CARBON	1K	5%	1/4W
R407	1-249-429-11	CARBON	10K	5%	1/4W
R408	1-249-441-11	CARBON	100K	5%	1/4W
R409	1-247-903-00	CARBON	1M	5%	1/4W
R410	1-249-429-11	CARBON	10K	5%	1/4W
R411	1-249-428-11	CARBON	8.2K	5%	1/4W
R412	1-249-441-11	CARBON	100K	5%	1/4W
R413	1-249-417-11	CARBON	1K	5%	1/4W
R414	1-249-417-11	CARBON	1K	5%	1/4W
R415	1-249-417-11	CARBON	1K	5%	1/4W
R416	1-249-405-11	CARBON	100	5%	1/4W
R417	1-249-417-11	CARBON	1K	5%	1/4W
R418	1-247-903-00	CARBON	1M	5%	1/4W
R419	1-247-903-00	CARBON	1M	5%	1/4W
R421	1-247-887-00	CARBON	220K	5%	1/4W
R422	1-249-429-11	CARBON	10K	5%	1/4W
R423	1-249-429-11	CARBON	10K	5%	1/4W
R439	1-249-413-11	CARBON	470	5%	1/4W
R440	1-249-413-11	CARBON	470	5%	1/4W
R442	1-249-413-11	CARBON	470	5%	1/4W
R443	1-249-413-11	CARBON	470	5%	1/4W
R444	1-249-413-11	CARBON	470	5%	1/4W
R446	1-249-413-11	CARBON	470	5%	1/4W
R447	1-249-413-11	CARBON	470	5%	1/4W
R448	1-249-413-11	CARBON	470	5%	1/4W
R449	1-249-417-11	CARBON	1K	5%	1/4W
R450	1-249-417-11	CARBON	1K	5%	1/4W
R451	1-249-417-11	CARBON	1K	5%	1/4W
R452	1-249-417-11	CARBON	1K	5%	1/4W
R453	1-249-417-11	CARBON	1K	5%	1/4W

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description			
R454	1-249-417-11	CARBON	1K	5%	1/4W
R455	1-249-417-11	CARBON	1K	5%	1/4W
R456	1-249-417-11	CARBON	1K	5%	1/4W
R491	1-249-433-11	CARBON	22K	5%	1/4W
R492	1-249-433-11	CARBON	22K	5%	1/4W
R493	1-249-425-11	CARBON	4.7K	5%	1/4W
R494	1-249-425-11	CARBON	4.7K	5%	1/4W
R495	1-247-892-11	CARBON	360K	5%	1/4W
R500	1-249-425-11	CARBON	4.7K	5%	1/4W
R501	1-247-854-11	CARBON	9.1K	5%	1/4W
R502	1-249-425-11	CARBON	4.7K	5%	1/4W
R503	1-247-854-11	CARBON	9.1K	5%	1/4W
R504	1-249-425-11	CARBON	4.7K	5%	1/4W
R505	1-247-862-11	CARBON	20K	5%	1/4W
R506	1-249-426-11	CARBON	5.6K	5%	1/4W
R507	1-249-426-11	CARBON	5.6K	5%	1/4W
R508	1-247-862-11	CARBON	20K	5%	1/4W
R509	1-249-426-11	CARBON	5.6K	5%	1/4W
R510	1-249-426-11	CARBON	5.6K	5%	1/4W
R511	1-249-421-11	CARBON	2.2K	5%	1/4W
R512	1-249-405-11	CARBON	100	5%	1/4W
R513	1-249-423-11	CARBON	3.3K	5%	1/4W
R514	1-249-420-11	CARBON	1.8K	5%	1/4W
R515	1-249-417-11	CARBON	1K	5%	1/4W
R516	1-249-441-11	CARBON	100K	5%	1/4W
R517	1-247-844-11	CARBON	3.6K	5%	1/4W
R518	1-249-425-11	CARBON	4.7K	5%	1/4W
R519	1-249-441-11	CARBON	100K	5%	1/4W
R520	1-249-429-11	CARBON	10K	5%	1/4W
R521	1-249-425-11	CARBON	4.7K	5%	1/4W
R522	1-249-441-11	CARBON	100K	5%	1/4W
R523	1-247-836-11	CARBON	1.6K	5%	1/4W
R524	1-249-421-11	CARBON	2.2K	5%	1/4W
R525	1-247-887-00	CARBON	220K	5%	1/4W
R526	1-249-413-11	CARBON	470	5%	1/4W
R527	1-249-413-11	CARBON	470	5%	1/4W
R528	1-249-413-11	CARBON	470	5%	1/4W
R529	1-249-425-11	CARBON	4.7K	5%	1/4W
R530	1-247-854-11	CARBON	9.1K	5%	1/4W
R531	1-249-425-11	CARBON	4.7K	5%	1/4W
R532	1-247-854-11	CARBON	9.1K	5%	1/4W
R533	1-249-425-11	CARBON	4.7K	5%	1/4W
R534	1-247-862-11	CARBON	20K	5%	1/4W
R535	1-249-426-11	CARBON	5.6K	5%	1/4W
R536	1-249-426-11	CARBON	5.6K	5%	1/4W
R537	1-247-862-11	CARBON	20K	5%	1/4W
R538	1-249-426-11	CARBON	5.6K	5%	1/4W
R539	1-249-426-11	CARBON	5.6K	5%	1/4W
R540	1-249-423-11	CARBON	3.3K	5%	1/4W
R541	1-249-433-11	CARBON	22K	5%	1/4W
R542	1-247-887-00	CARBON	220K	5%	1/4W
R543	1-249-413-11	CARBON	470	5%	1/4W
R544	1-249-425-11	CARBON	4.7K	5%	1/4W
R545	1-247-887-00	CARBON	220K	5%	1/4W
R546	1-247-887-00	CARBON	220K	5%	1/4W
R547	1-247-887-00	CARBON	220K	5%	1/4W
R548	1-247-887-00	CARBON	220K	5%	1/4W

Ref.No.	Part No.	Description			
R549	1-249-413-11	CARBON	470	5%	1/4W
R550	1-249-425-11	CARBON	4.7K	5%	1/4W
R551	1-247-854-11	CARBON	9.1K	5%	1/4W
R552	1-249-425-11	CARBON	4.7K	5%	1/4W
R553	1-247-854-11	CARBON	9.1K	5%	1/4W
R554	1-249-425-11	CARBON	4.7K	5%	1/4W
R555	1-247-862-11	CARBON	20K	5%	1/4W
R556	1-249-426-11	CARBON	5.6K	5%	1/4W
R557	1-249-426-11	CARBON	5.6K	5%	1/4W
R558	1-247-862-11	CARBON	20K	5%	1/4W
R559	1-249-426-11	CARBON	5.6K	5%	1/4W
R560	1-249-426-11	CARBON	5.6K	5%	1/4W
R561	1-249-421-11	CARBON	2.2K	5%	1/4W
R562	1-249-405-11	CARBON	100	5%	1/4W
R563	1-249-423-11	CARBON	3.3K	5%	1/4W
R564	1-249-420-11	CARBON	1.8K	5%	1/4W
R565	1-249-417-11	CARBON	1K	5%	1/4W
R566	1-249-441-11	CARBON	100K	5%	1/4W
R567	1-247-844-11	CARBON	3.6K	5%	1/4W
R568	1-249-425-11	CARBON	4.7K	5%	1/4W
R569	1-249-441-11	CARBON	100K	5%	1/4W
R570	1-249-429-11	CARBON	10K	5%	1/4W
R571	1-249-425-11	CARBON	4.7K	5%	1/4W
R572	1-249-441-11	CARBON	100K	5%	1/4W
R573	1-247-836-11	CARBON	1.6K	5%	1/4W
R574	1-249-421-11	CARBON	2.2K	5%	1/4W
R575	1-247-887-00	CARBON	220K	5%	1/4W
R576	1-249-413-11	CARBON	470	5%	1/4W
R577	1-249-413-11	CARBON	470	5%	1/4W
R578	1-249-413-11	CARBON	470	5%	1/4W
R579	1-249-425-11	CARBON	4.7K	5%	1/4W
R580	1-247-854-11	CARBON	9.1K	5%	1/4W
R581	1-249-425-11	CARBON	4.7K	5%	1/4W
R582	1-247-854-11	CARBON	9.1K	5%	1/4W
R583	1-249-425-11	CARBON	4.7K	5%	1/4W
R584	1-247-862-11	CARBON	20K	5%	1/4W
R585	1-249-426-11	CARBON	5.6K	5%	1/4W
R586	1-249-426-11	CARBON	5.6K	5%	1/4W
R587	1-247-862-11	CARBON	20K	5%	1/4W
R588	1-249-426-11	CARBON	5.6K	5%	1/4W
R589	1-249-426-11	CARBON	5.6K	5%	1/4W
R590	1-249-423-11	CARBON	3.3K	5%	1/4W
R591	1-249-433-11	CARBON	22K	5%	1/4W
R592	1-247-887-00	CARBON	220K	5%	1/4W
R593	1-249-413-11	CARBON	470	5%	1/4W
R594	1-249-425-11	CARBON	4.7K	5%	1/4W
R595	1-247-903-00	CARBON	1M	5%	1/4W
R596	1-249-441-11	CARBON	100K	5%	1/4W
R597	1-247-903-00	CARBON	1M	5%	1/4W
R598	1-247-903-00	CARBON	1M	5%	1/4W
R599	1-249-413-11	CARBON	470	5%	1/4W
R600	1-249-407-11	CARBON	150	5%	1/4W
R601	1-249-411-11	CARBON	330	5%	1/4W
R602	1-249-441-11	CARBON	100K	5%	1/4W
R603	1-249-441-11	CARBON	100K	5%	1/4W
R604	1-249-417-11	CARBON	1K	5%	1/4W
R605	1-247-897-11	CARBON	560K	5%	1/4W

Ref.No.	Part No.	Description				
R606	1-249-437-11	CARBON	47K	5%	1/4W	
R607	1-247-903-00	CARBON	1M	5%	1/4W	
R608	1-249-409-11	CARBON	220	5%	1/4W	
R609	1-249-409-11	CARBON	220	5%	1/4W	
R610	1-249-438-11	CARBON	56K	5%	1/4W	
R611	1-249-409-11	CARBON	220	5%	1/4W	
R612	1-249-438-11	CARBON	56K	5%	1/4W	
R613	1-249-417-11	CARBON	1K	5%	1/4W	
R614	1-249-417-11	CARBON	1K	5%	1/4W	
R615	1-249-417-11	CARBON	1K	5%	1/4W	
R616	1-249-417-11	CARBON	1K	5%	1/4W	
R617	1-249-409-11	CARBON	220	5%	1/4W	
R618	1-249-438-11	CARBON	56K	5%	1/4W	
R620	1-249-441-11	CARBON	100K	5%	1/4W	
R621	1-249-417-11	CARBON	1K	5%	1/4W	
R622	1-249-405-11	CARBON	100	5%	1/4W	
R623	1-249-426-11	CARBON	5.6K	5%	1/4W	
R624	1-249-441-11	CARBON	100K	5%	1/4W	
R625	1-247-887-00	CARBON	220K	5%	1/4W	
R626	1-249-441-11	CARBON	100K	5%	1/4W	
R627	1-249-441-11	CARBON	100K	5%	1/4W	
R629	1-249-425-11	CARBON	4.7K	5%	1/4W	
R630	1-249-429-11	CARBON	10K	5%	1/4W	
R631	1-249-425-11	CARBON	4.7K	5%	1/4W	
R632	1-249-433-11	CARBON	22K	5%	1/4W	
R633	1-249-413-11	CARBON	470	5%	1/4W	
R634	1-249-413-11	CARBON	470	5%	1/4W	
R635	1-249-417-11	CARBON	1K	5%	1/4W	
R636	1-249-426-11	CARBON	5.6K	5%	1/4W	
R637	1-249-441-11	CARBON	100K	5%	1/4W	
R638	1-249-426-11	CARBON	5.6K	5%	1/4W	
R639	1-249-426-11	CARBON	5.6K	5%	1/4W	
R640 ⚠	1-215-884-11	METAL OXIDE	47	5%	2W	F
R641	1-249-429-11	CARBON	10K	5%	1/4W	
R642	1-249-429-11	CARBON	10K	5%	1/4W	
R643	1-249-429-11	CARBON	10K	5%	1/4W	
R644	1-249-417-11	CARBON	1K	5%	1/4W	
R645	1-249-426-11	CARBON	5.6K	5%	1/4W	
R646	1-249-417-11	CARBON	1K	5%	1/4W	
R647	1-249-417-11	CARBON	1K	5%	1/4W	
R648	1-249-417-11	CARBON	1K	5%	1/4W	
R649	1-249-441-11	CARBON	100K	5%	1/4W	
R650	1-249-429-11	CARBON	10K	5%	1/4W	
R651	1-249-411-11	CARBON	330	5%	1/4W	
R652	1-249-441-11	CARBON	100K	5%	1/4W	
R653	1-249-441-11	CARBON	100K	5%	1/4W	
R654	1-249-417-11	CARBON	1K	5%	1/4W	
R655	1-247-897-11	CARBON	560K	5%	1/4W	
R656	1-249-437-11	CARBON	47K	5%	1/4W	
R657	1-247-903-00	CARBON	1M	5%	1/4W	
R658	1-249-409-11	CARBON	220	5%	1/4W	
R659	1-249-409-11	CARBON	220	5%	1/4W	
R660	1-249-438-11	CARBON	56K	5%	1/4W	
R661	1-249-409-11	CARBON	220	5%	1/4W	
R662	1-249-438-11	CARBON	56K	5%	1/4W	
R663	1-249-417-11	CARBON	1K	5%	1/4W	
R664	1-249-417-11	CARBON	1K	5%	1/4W	

Ref.No.	Part No.	Description				
R665	1-249-417-11	CARBON	1K	5%	1/4W	
R666	1-249-417-11	CARBON	1K	5%	1/4W	
R667	1-249-409-11	CARBON	220	5%	1/4W	
R668	1-249-438-11	CARBON	56K	5%	1/4W	
R669	1-247-887-00	CARBON	220K	5%	1/4W	
R670	1-249-441-11	CARBON	100K	5%	1/4W	
R671	1-249-417-11	CARBON	1K	5%	1/4W	
R672	1-249-405-11	CARBON	100	5%	1/4W	
R673	1-249-426-11	CARBON	5.6K	5%	1/4W	
R674	1-249-429-11	CARBON	10K	5%	1/4W	
R675	1-247-887-00	CARBON	220K	5%	1/4W	
R676	1-249-441-11	CARBON	100K	5%	1/4W	
R677	1-249-441-11	CARBON	100K	5%	1/4W	
R678	1-249-417-11	CARBON	1K	5%	1/4W	
R679	1-249-425-11	CARBON	4.7K	5%	1/4W	
R680	1-249-429-11	CARBON	10K	5%	1/4W	
R681	1-249-441-11	CARBON	100K	5%	1/4W	
R682	1-249-441-11	CARBON	100K	5%	1/4W	
R683	1-249-441-11	CARBON	100K	5%	1/4W	
R684	1-249-441-11	CARBON	100K	5%	1/4W	
R685	1-249-441-11	CARBON	100K	5%	1/4W	
R686	1-249-441-11	CARBON	100K	5%	1/4W	
R687 ⚠	1-215-884-11	METAL OXIDE	47	5%	2W	F
R688	1-249-393-11	CARBON	10	5%	1/4W	
R689	1-249-441-11	CARBON	100K	5%	1/4W	
R690	1-249-429-11	CARBON	10K	5%	1/4W	
R691	1-249-425-11	CARBON	4.7K	5%	1/4W	
R692	1-249-393-11	CARBON	10	5%	1/4W	
R693	1-249-425-11	CARBON	4.7K	5%	1/4W	
R694	1-249-417-11	CARBON	1K	5%	1/4W	
R695	1-249-441-11	CARBON	100K	5%	1/4W	
R696	1-249-417-11	CARBON	1K	5%	1/4W	
R697	1-249-417-11	CARBON	1K	5%	1/4W	
R698	1-249-417-11	CARBON	1K	5%	1/4W	
R699	1-249-441-11	CARBON	100K	5%	1/4W	
R701	1-249-417-11	CARBON	1K	5%	1/4W	
R703	1-249-441-11	CARBON	100K	5%	1/4W	
R704	1-249-413-11	CARBON	470	5%	1/4W	
R705	1-249-441-11	CARBON	100K	5%	1/4W	
R706	1-249-415-11	CARBON	680	5%	1/4W	
R707 ⚠	1-247-700-11	CARBON	100	5%	1/4W	F
R708	1-249-422-11	CARBON	2.7K	5%	1/4W	
R709	1-249-416-11	CARBON	820	5%	1/4W	
R710 ⚠	1-247-700-11	CARBON	100	5%	1/4W	F
R711 ⚠	1-247-708-11	CARBON	470	5%	1/4W	F
R712 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R713 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R714 ⚠	1-247-739-11	CARBON	100	5%	1/2W	F
R715 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R716 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R717 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R718 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R719 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R720 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R721 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R722 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R723	1-249-419-11	CARBON	1.5K	5%	1/4W	

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				
R724	1-249-419-11	CARBON	1.5K	5%	1/4W	
R725	1-249-417-11	CARBON	1K	5%	1/4W	
R726	1-249-417-11	CARBON	1K	5%	1/4W	
R727	1-249-431-11	CARBON	15K	5%	1/4W	
R728	1-249-431-11	CARBON	15K	5%	1/4W	
R729	1-249-482-11	CARBON	4.7	5%	1/2W	
R730	1-247-727-11	CARBON	10	5%	1/2W	
R731	1-249-429-11	CARBON	10K	5%	1/4W	
R732	1-249-436-11	CARBON	39K	5%	1/4W	
R733	1-249-437-11	CARBON	47K	5%	1/4W	
R734	1-249-417-11	CARBON	1K	5%	1/4W	
R735	1-249-438-11	CARBON	56K	5%	1/4W	
R736 ⚠	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R737 ⚠	1-247-696-11	CARBON	47	5%	1/4W	F
R738A ⚠	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R738	1-249-429-11	CARBON	10K	5%	1/4W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	
R741	1-249-441-11	CARBON	100K	5%	1/4W	
R742	1-249-421-11	CARBON	2.2K	5%	1/4W	
R743	1-249-441-11	CARBON	100K	5%	1/4W	
R744	1-249-419-11	CARBON	1.5K	5%	1/4W	
R745	1-249-431-11	CARBON	15K	5%	1/4W	
R746 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R747	1-249-438-11	CARBON	56K	5%	1/4W	
R748	1-249-393-11	CARBON	10	5%	1/4W	
R749	1-249-389-11	CARBON	4.7	5%	1/4W	
R751	1-249-417-11	CARBON	1K	5%	1/4W	
R753	1-249-441-11	CARBON	100K	5%	1/4W	
R754	1-249-413-11	CARBON	470	5%	1/4W	
R755	1-249-441-11	CARBON	100K	5%	1/4W	
R756	1-249-415-11	CARBON	680	5%	1/4W	
R757 ⚠	1-247-700-11	CARBON	100	5%	1/4W	F
R758	1-249-422-11	CARBON	2.7K	5%	1/4W	
R759	1-249-416-11	CARBON	820	5%	1/4W	
R760 ⚠	1-247-700-11	CARBON	100	5%	1/4W	F
R761 ⚠	1-247-708-11	CARBON	470	5%	1/4W	F
R762 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R763 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R764 ⚠	1-247-739-11	CARBON	100	5%	1/2W	F
R765 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R766 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R767 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R768 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R769 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R770 ⚠	1-247-688-11	CARBON	10	5%	1/4W	F
R771 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R772 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R773	1-249-419-11	CARBON	1.5K	5%	1/4W	
R774	1-249-419-11	CARBON	1.5K	5%	1/4W	
R775	1-249-417-11	CARBON	1K	5%	1/4W	
R776	1-249-417-11	CARBON	1K	5%	1/4W	
R777	1-249-431-11	CARBON	15K	5%	1/4W	
R778	1-249-431-11	CARBON	15K	5%	1/4W	
R779	1-249-482-11	CARBON	4.7	5%	1/2W	
R780	1-247-727-11	CARBON	10	5%	1/2W	
R783 ⚠	1-247-704-11	CARBON	220	5%	1/4W	F

Ref.No.	Part No.	Description				
R785	1-249-437-11	CARBON	47K	5%	1/4W	
R786 ⚠	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R787 ⚠	1-247-696-11	CARBON	47	5%	1/4W	F
R788	1-249-429-11	CARBON	10K	5%	1/4W	
R789	1-249-417-11	CARBON	1K	5%	1/4W	
R791	1-249-441-11	CARBON	100K	5%	1/4W	
R792	1-249-421-11	CARBON	2.2K	5%	1/4W	
R793	1-249-441-11	CARBON	100K	5%	1/4W	
R794	1-249-419-11	CARBON	1.5K	5%	1/4W	
R795	1-249-431-11	CARBON	15K	5%	1/4W	
R796 ⚠	1-217-151-00	RES, METAL PLATE 0.22			2W	
R797	1-249-437-11	CARBON	47K	5%	1/4W	
R798	1-249-393-11	CARBON	10	5%	1/4W	
R799	1-249-389-11	CARBON	4.7	5%	1/4W	
R801	1-249-425-11	CARBON	4.7K	5%	1/4W	
R802	1-249-396-11	CARBON	18	5%	1/4W	
R803	1-249-417-11	CARBON	1K	5%	1/4W	
R804	1-249-436-11	CARBON	39K	5%	1/4W	
R805	1-249-429-11	CARBON	10K	5%	1/4W	
R806	1-249-426-11	CARBON	5.6K	5%	1/4W	
R807	1-249-429-11	CARBON	10K	5%	1/4W	
R808	1-249-426-11	CARBON	5.6K	5%	1/4W	
R809	1-249-417-11	CARBON	1K	5%	1/4W	
R812	1-249-417-11	CARBON	1K	5%	1/4W	
R813	1-249-429-11	CARBON	10K	5%	1/4W	
R819	1-249-428-11	CARBON	8.2K	5%	1/4W	
R820	1-249-433-11	CARBON	22K	5%	1/4W	
R821	1-249-420-11	CARBON	1.8K	5%	1/4W	
R822	1-247-887-00	CARBON	220K	5%	1/4W	
R823	1-249-405-11	CARBON	100	5%	1/4W	
R824	1-249-421-11	CARBON	2.2K	5%	1/4W	
R825	1-247-901-11	CARBON	820K	5%	1/4W	
R826	1-249-440-11	CARBON	82K	5%	1/4W	
R827	1-249-421-11	CARBON	2.2K	5%	1/4W	
R828	1-247-903-00	CARBON	1M	5%	1/4W	
R829	1-249-441-11	CARBON	100K	5%	1/4W	
R830	1-249-440-11	CARBON	82K	5%	1/4W	
R831	1-249-421-11	CARBON	2.2K	5%	1/4W	
R832	1-247-903-00	CARBON	1M	5%	1/4W	
R833	1-249-441-11	CARBON	100K	5%	1/4W	
R834	1-249-439-11	CARBON	68K	5%	1/4W	
R835	1-249-420-11	CARBON	1.8K	5%	1/4W	
R836	1-247-901-11	CARBON	820K	5%	1/4W	
R837	1-249-441-11	CARBON	100K	5%	1/4W	
R838	1-249-439-11	CARBON	68K	5%	1/4W	
R839	1-249-421-11	CARBON	2.2K	5%	1/4W	
R840	1-247-901-11	CARBON	820K	5%	1/4W	
R841	1-249-441-11	CARBON	100K	5%	1/4W	
R842	1-249-440-11	CARBON	82K	5%	1/4W	
R843	1-249-421-11	CARBON	2.2K	5%	1/4W	
R844	1-247-903-00	CARBON	1M	5%	1/4W	
R845	1-249-441-11	CARBON	100K	5%	1/4W	
R846	1-249-439-11	CARBON	68K	5%	1/4W	
R847	1-249-420-11	CARBON	1.8K	5%	1/4W	
R848	1-247-901-11	CARBON	820K	5%	1/4W	
R849	1-249-441-11	CARBON	100K	5%	1/4W	
R850	1-249-440-11	CARBON	82K	5%	1/4W	
R851	1-249-421-11	CARBON	2.2K	5%	1/4W	

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Ref.No.	Part No.	Description			
R852	1-247-903-00	CARBON	1M	5%	1/4W
R853	1-249-441-11	CARBON	100K	5%	1/4W
R854	1-249-440-11	CARBON	82K	5%	1/4W
R855	1-249-422-11	CARBON	2.7K	5%	1/4W
R856	1-247-903-00	CARBON	1M	5%	1/4W
R857	1-249-441-11	CARBON	100K	5%	1/4W
R858	1-249-437-11	CARBON	47K	5%	1/4W
R859	1-249-418-11	CARBON	1.2K	5%	1/4W
R860	1-247-897-11	CARBON	560K	5%	1/4W
R861	1-249-441-11	CARBON	100K	5%	1/4W
R862	1-249-433-11	CARBON	22K	5%	1/4W
R863	1-249-415-11	CARBON	680	5%	1/4W
R864	1-247-889-00	CARBON	270K	5%	1/4W
R865	1-249-441-11	CARBON	100K	5%	1/4W
R867	1-249-429-11	CARBON	10K	5%	1/4W
R868	1-249-429-11	CARBON	10K	5%	1/4W
R869	1-249-429-11	CARBON	10K	5%	1/4W
R870	1-249-441-11	CARBON	100K	5%	1/4W
R871	1-249-413-11	CARBON	470	5%	1/4W
R872	1-249-413-11	CARBON	470	5%	1/4W
R873	1-249-413-11	CARBON	470	5%	1/4W
R874	1-249-413-11	CARBON	470	5%	1/4W
R875	1-249-441-11	CARBON	100K	5%	1/4W
R876	1-249-441-11	CARBON	100K	5%	1/4W
R877	1-249-441-11	CARBON	100K	5%	1/4W
R878	1-249-441-11	CARBON	100K	5%	1/4W
R879	1-249-441-11	CARBON	100K	5%	1/4W
R880	1-249-441-11	CARBON	100K	5%	1/4W
R881	1-249-441-11	CARBON	100K	5%	1/4W
R882	1-249-441-11	CARBON	100K	5%	1/4W
R883	1-249-441-11	CARBON	100K	5%	1/4W
R884	1-249-441-11	CARBON	100K	5%	1/4W
R885	1-249-441-11	CARBON	100K	5%	1/4W
R886	1-249-441-11	CARBON	100K	5%	1/4W
R887	1-249-441-11	CARBON	100K	5%	1/4W
R888	1-249-441-11	CARBON	100K	5%	1/4W
R889	1-249-426-11	CARBON	5.6K	5%	1/4W
R890	1-249-426-11	CARBON	5.6K	5%	1/4W
R891	1-249-426-11	CARBON	5.6K	5%	1/4W
R892	1-249-426-11	CARBON	5.6K	5%	1/4W
R893	1-249-426-11	CARBON	5.6K	5%	1/4W
R894	1-249-426-11	CARBON	5.6K	5%	1/4W
R895	1-249-437-11	CARBON	47K	5%	1/4W
R896	1-249-437-11	CARBON	47K	5%	1/4W
R898	1-249-441-11	CARBON	100K	5%	1/4W
R899	1-249-441-11	CARBON	100K	5%	1/4W
R901 ⚠	1-202-725-00	SOLID	3.3M	10%	1/2W
RT001	1-238-601-11	RES, ADJ, CARBON 22K (AM TUNED)			
RT002	1-238-601-11	RES, ADJ, CARBON 22K (AUTO STOP)			
RT003	1-238-602-11	RES, ADJ, CARBON 47K (FM STEREO OPERATION)			
RT004	1-238-604-11	RES, ADJ, CARBON 220K (FM SEP)			
RT701	1-238-596-11	RES, ADJ, CAREBON 470 (BIAS)			
RT751	1-238-596-11	RES, ADJ, CAREBON 470 (BIAS)			
RV101	1-238-655-11	RES, VAR, CARBON 100KX4 (VOLUME)			
RV102	1-238-637-11	RES, VAR, CARBON 50K/50K (BALANCE)			

Ref.No.	Part No.	Description
RX301	8-749-921-11	IC GP1F32R (OPTICAL)
RY601	1-515-726-11	RELAY
RY701	1-515-356-00	RELAY
RY702	1-515-533-11	RELAY
RY703	1-515-533-11	RELAY
RY901 ⚠	1-515-701-11	RELAY
S200	1-554-303-21	SWITCH, KEY BOARD (POWER)
S201	1-554-303-21	SWITCH, KEY BOARD (CD)
S202	1-554-303-21	SWITCH, KEY BOARD (TUNER)
S203	1-554-303-21	SWITCH, KEY BOARD (PHONO)
S204	1-554-303-21	SWITCH, KEY BOARD (◁)
S205	1-554-303-21	SWITCH, KEY BOARD (▷)
S206	1-554-303-21	SWITCH, KEY BOARD (EQ)
S207	1-554-303-21	SWITCH, KEY BOARD (TUNING)
S208	1-554-303-21	SWITCH, KEY BOARD (F.MODE)
S209	1-554-303-21	SWITCH, KEY BOARD (INDEX -)
S210	1-554-303-21	SWITCH, KEY BOARD (INDEX +)
S211	1-554-303-21	SWITCH, KEY BOARD (PRE -)
S212	1-554-303-21	SWITCH, KEY BOARD (PRE +)
S213	1-554-303-21	SWITCH, KEY BOARD (SLOPE)
S214	1-554-303-21	SWITCH, KEY BOARD (SHIFT)
S215	1-554-303-21	SWITCH, KEY BOARD (ID SEL)
S216	1-554-303-21	SWITCH, KEY BOARD (FM MODE)
S217	1-554-303-21	SWITCH, KEY BOARD (FM/AM)
S218	1-554-303-21	SWITCH, KEY BOARD (▽)
S219	1-554-303-21	SWITCH, KEY BOARD (△)
S220	1-554-303-21	SWITCH, KEY BOARD (RECALL)
S221	1-554-303-21	SWITCH, KEY BOARD (9)
S222	1-554-303-21	SWITCH, KEY BOARD (2)
S223	1-554-303-21	SWITCH, KEY BOARD (5)
S224	1-554-303-21	SWITCH, KEY BOARD (8)
S225	1-554-303-21	SWITCH, KEY BOARD (0)
S226	1-554-303-21	SWITCH, KEY BOARD (SUB)
S227	1-554-303-21	SWITCH, KEY BOARD (6)
S228	1-554-303-21	SWITCH, KEY BOARD (3)
S229	1-554-303-21	SWITCH, KEY BOARD (1)
S230	1-554-303-21	SWITCH, KEY BOARD (4)
S231	1-554-303-21	SWITCH, KEY BOARD (7)
S232	1-554-303-21	SWITCH, KEY BOARD (MEMORY)
S233	1-554-303-21	SWITCH, KEY BOARD (MAIN)
S234	1-554-303-21	SWITCH, KEY BOARD (PGM SET)
S235	1-554-303-21	SWITCH, KEY BOARD (DIRECT)
S236	1-554-303-21	SWITCH, KEY BOARD (DAT)
S237	1-554-303-21	SWITCH, KEY BOARD (TAPE 1)
S238	1-554-303-21	SWITCH, KEY BOARD (VIDEO 3)
S239	1-554-303-21	SWITCH, KEY BOARD (VIDEO 2)
S240	1-554-303-21	SWITCH, KEY BOARD (VIDEO 1)
S241	1-554-303-21	SWITCH, KEY BOARD (DIGITAL)
S242	1-554-303-21	SWITCH, KEY BOARD (TAPE 2)
S243	1-554-303-21	SWITCH, KEY BOARD (U/PRESET)
S244	1-554-303-21	SWITCH, KEY BOARD (D.CHAR)
S245	1-554-303-21	SWITCH, KEY BOARD (D.GRAP)
S246	1-554-303-21	SWITCH, KEY BOARD (EDIT A)
S247	1-554-303-21	SWITCH, KEY BOARD (EDIT V)
S248	1-554-303-21	SWITCH, KEY BOARD (HELP)
S249	1-572-184-11	SWITCH, KEYBOARD (DRLC/POWER)
S250	1-554-303-21	SWITCH, KEY BOARD (F,LINK)

Note:
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Replace only with part number specified.

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Ref.No.	Part No.	Description
S251	1-554-303-21	SWITCH, KEY BOARD (D DS)
S252	1-554-303-21	SWITCH, KEY BOARD (FLAT)
S253	1-554-303-21	SWITCH, KEY BOARD (EQ ON/OFF)
S254	1-554-303-21	SWITCH, KEY BOARD (PROLOGIC)
S255	1-554-303-21	SWITCH, KEY BOARD (S,MODE)
S256	1-554-303-21	SWITCH, KEY BOARD (SURROND/OFF)
S257	1-554-303-21	SWITCH, KEY BOARD (MUTING -20dB)
S258	1-554-303-21	SWITCH, KEY BOARD (INPUT BAL AUTO)
S701	1-572-322-11	SWITCH, SLIDE (SPEAKERS)
T001	1-404-743-11	COIL, DISCRIMINATOR
T002	1-404-742-11	COIL, DISCRIMINATOR
T901 ⚠	1-448-517-21	TRANSFORMER, POWER
T902 ⚠	1-450-144-11	TRANSFORMER, POWER
TM001	*1-562-907-11	CONNECTOR, F-J (ANTENNA FM)
TM002	1-536-707-00	TERMINAL BOARD, PUSH 2P (ANTENNA AM)
TM701	1-537-235-11	TERMINAL BOARD (SP)(SPEAKERS)
TM702	1-536-706-00	TERMINAL BOARD (SP) (SURROUND/DRLC SPEAKER)
TP001	*1-560-060-00	PIN, CONNECTOR 2P (NULL)
TP601	*1-560-061-00	PIN, CONNECTOR 3P
TP701	*1-560-062-00	PIN, CONNECTOR 4P (BIAS)
VZ901 ⚠	1-807-293-11	VARISTOR (SNR-14A 140K)
X001	1-567-826-21	VIBRATOR, CRYSTAL (7.2MHz)
X301	1-577-269-11	VIBRATOR, CRYSTAL (18.432MHz)
X302	1-579-047-11	VIBRATOR, CRYSTAL (30.798MHz)

ACCESSORY & PACKING MATERIAL

1-417-141-11	MATCHING TRANSFORMER, ANTENNA
1-465-417-11	REMOTE COMMANDER (RM-P301)
1-501-224-00	ANTENNA, FEEDER
1-501-374-11	ANTENNA, LOOP
3-752-284-21	MANUAL, INSTRUCTION (ENGLISH)
3-752-284-31	(Canadian)...MANUAL, INSTRUCTION (FRENCH)
3-703-390-01	(US).....INSTRUCTION
3-795-433-31	(Canadian)...INSTRUCTION
4-925-079-01	COVER (6), BATTERY
*4-931-047-01	CUSHION
*4-938-150-01	INDIVIDUAL CARTON

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